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ELECTRIC POWER DEVELOPMENT IN THE UNITED STATES

LETTER

FROM THE

SECRETARY OF AGRICULTURE

TRANSMITTING

A REPORT, IN RESPONSE TO A SENATE RESOLUTION OF FEBRUARY 13, 1915, AS TO THE OWNERSHIP AND CONTROL OF THE WATER-POWER SITES IN THE UNITED STATES

IN THREE PARTS

PART 1

JANUARY 20, 1916.—Referred to the Committee on Printing

WASHINGTON
GOVERNMENT PRINTING OFFICE
1916

REPORTED BY MR. FLETCHER.

IN THE SENATE OF THE UNITED STATES,
February 8, 1916.

Resolved, That the report entitled "Electric power development in the United States and concentration in its ownership and control," transmitted to the Senate by the Secretary of Agriculture on January 20, 1916, in response to Senate resolution No. 544, Sixty-third Congress, be printed as a Senate document, together with accompanying tables and illustrations: *Provided*, That Part I of said report be first printed and furnished to the Senate at the earliest practicable day.

Attest:

JAMES M. BAKER, *Secretary.*

LETTERS OF TRANSMITTAL.

DEPARTMENT OF AGRICULTURE,
Washington, January 17, 1916.

SIR: In accordance with the provisions of Senate resolution No. 544, passed by the Sixty-third Congress, third session, I have the honor to transmit herewith the information in my possession as to the ownership and control of the water-power sites in the United States; showing what proportion of such water-power sites is in private ownership and by what companies and corporations such sites in private ownership are owned and controlled; what horsepower has been developed and what proportion of it is owned and controlled by such private companies and corporations; and facts bearing upon the question as to the existence of a monopoly in the ownership and control of hydroelectric power in the United States.

Respectfully,

D. F. HOUSTON, *Secretary.*

The PRESIDENT OF THE SENATE.

DEPARTMENT OF AGRICULTURE,
FOREST SERVICE,
Washington, December 21, 1915.

The SECRETARY OF AGRICULTURE.

DEAR MR. SECRETARY: Senate resolution No. 544, passed by the Sixty-third Congress, third session, directed that the Secretary of Agriculture furnish to the Senate certain information in regard to the water-power industry. The resolution reads as follows:

Resolved, That the Secretary of Agriculture be, and he is hereby, directed to furnish the Senate with all information in his possession as to the ownership and control of the water-power sites in the United States, showing what proportion of such water-power sites is in private ownership and by what companies and corporations such sites in private ownership are owned and controlled, what horsepower has been developed, and what proportion of it is owned and controlled by such private companies and corporations, and any facts bearing upon the question as to the existence of a monopoly in the ownership and control of hydroelectric power in the United States.

The work of preparing the material called for in this resolution was assigned to Mr. O. C. Merrill, chief engineer of the Forest Service. The information has been brought together by Mr. Merrill in the form of a report which contains, in addition to the text, the data upon which the various conclusions are based. There are, further, various charts and diagrams which illustrate the results of the study in graphic form.

I recommend that this report be transmitted to the Senate.

Very sincerely, yours,

H. S. GRAVES, *Forester.*

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LETTER OF SUBMITTAL.

DEPARTMENT OF AGRICULTURE,
FOREST SERVICE,
Washington, December 20, 1915.

SIR: I submit to you herewith a report upon Electric Power Development in the United States and the Movement Toward Concentration of Control, prepared in response to Senate resolution 544, Sixty-third Congress, third session.

This report has been made up from data which have been accumulating for several years in the office of the chief engineer, supplemented by investigations made in the field by district engineers of the Forest Service and by correspondence with officials of power companies, to whom have been submitted for verification the greater part of the data on power development in 1915 as contained in the report.

The report is presented in three parts: Part I, containing the text of the report; Part II, the plates and tables concerning primary power, power generated, and financial statistics, the detailed data of power developments in 1915, the summary tables showing the concentration in control of this power, and maps of fourteen of the public-land States showing the location of all power plants, main transmission systems, and national-forest areas; and Part III, which contains the data concerning the interrelations between public-service holding companies and the relation of these companies to certain banking corporations, diagrams showing the successive steps by which certain holding companies have established their control over operating companies, and charts indicating the relation through directors or principal officers of certain public-utility holding companies with each other.

In submitting this report I wish to express my appreciation of the invaluable assistance given by Mr. T. W. Norcross, assistant chief engineer, who, together with Mr. Frank A. Law, of the Portland office, collected the data and prepared the tables and charts in Part III of the report; by Mr. J. P. Martin, district engineer of the Ogden office, who made the special census of electric power development for 1915; and by Mr. Ralph R. Randell, assistant engineer, who aided in the preparation of all parts of the report, and especially in the computation of the tables and plates of Part II.

Respectfully,

O. C. MERRILL,
Chief Engineer.

H. S. GRAVES, *Forester.*

REPORT ON ELECTRIC POWER DEVELOPMENT IN THE UNITED STATES AND CONCENTRATION IN ITS OWNERSHIP AND CONTROL.

Part I. Text of report.
Part II. Potential power resources of the United States; Comparative statistics of primary power, power generated, and finances for 1902, 1907, and 1912; Electric power census for 1915, and statistics of concentration of control; Tables, maps, and diagrams.
Part III. Consolidation of electric power holding companies, and interrelations through common directors or principal officers of such companies with each other and with certain banking corporations; Tables and charts.

PART I.

INTRODUCTION.

This report has been prepared in response to Senate resolution No. 544, Sixty-third Congress, third session, which is as follows:

Resolved, That the Secretary of Agriculture be, and he is hereby, directed to furnish the Senate with all information in his possession as to the ownership and control of the water-power sites in the United States, showing what proportion of such water-power sites is in private ownership and by what companies and corporations such sites in private ownership are owned and controlled; what horsepower has been developed and what proportion of it is owned and controlled by such private companies and corporations; and any facts bearing upon the question as to the existence of a monopoly in the ownership and control of hydroelectric power in the United States.

The report deals with the amount of developed power in all the States, whether water power, steam power, or gas power, and whether developed by public-service corporations, by industrial corporations, or by municipalities. The inquiry has been made thus extensive because only by such means can a clear understanding be had of the relation of water-power development to general power development and of the movement toward concentration of control in the electric-power industry. Complete data are given for the years 1902, 1907, and 1912, and data of public-service electric development and of the larger industrial water powers for 1915. The former are taken from the reports of the Bureau of the Census, the latter were obtained by a special census made in connection with this report.

Studies have been made of the amount of power generated and of the financial operations of commercial and municipal stations for the three census years. The investigations concerning concentration in the ownership and direct control of electric power in general, and of water power in particular, are from 1915 data.

In the investigation of the relationship of electric power corporations to each other and to banking corporations through common directors and principal officers it was necessary to use data for 1914. In connection with this line of investigation there is presented in Part III a list of some 1,500 electric power holding and operating companies, showing for each the corporations with which it is affiliated through common directors or principal officers, and a list of such officers and directors, giving with each the company in which he serves.

On account of the oft-repeated assertion that in the Western (or public-land) States power development has become stagnant because of the lack of appropriate legislation, specific attention has been directed toward determining whether this assertion has any foundation in fact.

In order that anyone who may not agree with the conclusions reached in this report may have the information from which to draw his own independent conclusions, the entire data upon which the report is based are presented in detail in Part II and Part III.

RÉSUMÉ OF THE REPORT.

POTENTIAL WATER-POWER RESOURCES OF THE UNITED STATES.

The most comprehensive estimates of the water-power resources of the United States are those which were made by the United States Geological Survey in 1908 for the National Conservation Commission. In connection with this report, the survey's original estimates have been reviewed in detail for the Western States, the entire estimate compared with the revised figures as presented by the Commissioner of Corporations in his report on "Water-power development in the United States," 1912, and corrections made for certain omissions. Segregation has been made of that part of the estimated power which is located on the national forests, both minimum and maximum, according to the basis used by the survey with reduction to a plant efficiency of 75 per cent. The minimum estimates represent the amount of power that could be developed from the use of the average annual minimum stream flow "for the lowest two consecutive seven-day periods in each year." The maximum represents the amount that could be developed from the use of the average maximum continuous stream flow available for six months during the year. On these

two bases the figures as corrected and computed at 75 per cent efficiency give the minimum potential water-power resources as 27,943,000 horsepower, and the maximum as 53,905,000 horsepower. Of these amounts the national forests contain a minimum of 8,497,600 horsepower, or 30.4 per cent of the total minimum; and a maximum of 16,874,500 horsepower, or 31.3 per cent of the total maximum for the United States.

The most significant fact in connection with these figures is the geographical concentration of water powers. Of the estimated total for the United States over 72 per cent is found in the Mountain and Pacific States—the public-land States. Nearly one-half of the total, or 42 per cent, is found in the three States Washington, Oregon, and California. Of the water powers within the national forests, 99¾ per cent are found in the Western States, and these powers amount to 42 per cent of the minimum and 43 per cent of the maximum estimated power resources of those States.

DEVELOPED POWER IN THE UNITED STATES.

The total primary power under development in the United States in 1912 in commercial and municipal central stations, street and electric railways, and in manufacturing plants as estimated and reported for the year was 30,448,246 horsepower. Twenty-two and nine-tenths per cent of this amount was used in commercial central stations—the public-utility business. Municipal stations had 1.8 per cent and electric railways 12.1 per cent. Nearly two-thirds of the total, or 63.2 per cent, was used in manufactures.

Sixteen per cent of the total primary power in 1912, or 4,870,320 horsepower, was water power, of which nearly one-half was used in commercial central stations. Municipal stations had less than 3 per cent, street and electric railways about 10 per cent, and manufactures about 40 per cent. The proportion of water power which is used in public-service operations is more than twice as great as the proportion of other sources of power.

The reported and estimated steam installation for the United States in 1912 was 24,339,819 horsepower, 80 per cent of the total power from all sources. Two-thirds of the steam power was used in manufacturing, about one-fifth in commercial central stations, one-eighth in street and electric railways, and less than 2 per cent in municipal stations. The three States Pennsylvania, New York, and Ohio had more than one-third of the total steam power installation of the United States. Internal-combustion engines are a relatively unimportant source of primary power, their installation amounting to only 4 per cent of the total from all sources in 1912, 90 per cent of which was used in manufactures.

PRIMARY POWER IN PUBLIC-SERVICE OPERATIONS.

The clearest understanding of the trend of electric power development can be had from a consideration of the primary power installations of the commercial and municipal central stations and the street and electric railways, for these classes of uses comprise the electric power industry. The total primary power installed in these classes of stations in 1912 aggregated 11,193,699 horsepower, 36.8 per cent of the total primary power used for all purposes in the United States. Slightly over one-fourth of the total was water power and nearly three-fourths steam power. The preponderance of steam power is mainly found in the Eastern States where two groups, the Middle Atlantic and the East North Central States had in 1912 more than one-half the total for the United States. The special census of public-utility plants made for this report shows an increase of 2,769,036 horsepower since 1912, of which 1,668,114 horsepower is water power and 1,100,922 horsepower steam power. The rate of increase in water-power development during these last three years for public-service use has been three times as great as the rate of increase in steam power.

MUNICIPAL POWER DEVELOPMENT.

Municipal stations in 1912 had 559,328 horsepower of primary installation, or less than 2 per cent of the total from all sources and for all uses in the United States, and about 8 per cent of the amount installed in commercial central stations. The upper Mississippi Valley leads in municipal development, although Washington had in 1912 the largest installation of any single State. The highest rate of increase in municipal development is found in the Western States, the Mountain group increasing 1,960 per cent and the Pacific group 2,280 per cent from 1902 to 1912.

RELATION OF WATER-POWER DEVELOPMENT TO TOTAL POWER DEVELOPMENT.

In seven of the nine geographic divisions—the Pacific and Mountain groups alone excepted—the total primary power installed in 1912 was in excess of the estimated minimum potential water-power resources of the section, and in five out of the seven in excess of the maximum resources without storage. Five great groups of States, the New England, the Middle Atlantic, the East North Central, the West North Central, and the West South Central, having in 1912 a population of 67,000,000, or 70 per cent of the total for the United States, had already installed a primary power equipment, water, steam, and gas, of 14½ million horsepower, or 171 per cent in excess of their estimated maximum water-power resources; and two other groups, the South Atlantic and the East South Central, had exceeded their minimum resources. In these seven groups 23 individual States had already installed in 1912 primary power equipment in excess of their maximum water-power resources and 29 States in excess of their minimum resources. Under such circumstances it is idle to assume that water power can wholly supersede steam power over the greater part of the United States under any conditions now known. While it would be rash to attempt to predict the future or to set limits to the distance to which it may be possible eventually to transmit electric power, yet until the time shall have come, if it ever comes, when the enormous power resources of the Western States can be developed and transmitted into the States of the Mississippi Valley and along the Atlantic coast, the greater part of the United States will be forced to rely for the larger part of its power on sources other than water power.

RELATIVE POSITION OF THE WESTERN STATES IN PRIMARY POWER DEVELOPMENT.

In the eleven Western States included within the Pacific and Mountain groups, primary power installation from all sources and for all uses increased 240 per

cent from 1902 to 1912, or more than two and a half times as rapidly as in the remainder of the United States. In primary power equipment per capita the Western States during the same period added nearly twice as much to their total installation as the remainder of the United States and had an installation at the end of the period one-third greater than for the remainder of the United States. This comparison includes primary power used directly in manufactures, 94 per cent of which is found in the Central and Eastern States.

If a comparison is made of the development of electric power in the Western States and the remainder of the United States it is found that while primary power employed in the electrical industry increased 226 per cent in the remainder of the United States in the 10 years 1902 to 1912, it increased 440 per cent in the Western States, or nearly twice as rapidly, while the development per capita in the Western States in 1912 was two and a half times as great as in the remainder of the United States.

If water power be considered apart from all other sources of power, the Western States are found to occupy a still more commanding position. While water-power development in the remainder of the United States increased 98 per cent from 1902 to 1912, it increased 451 per cent in the Western States, or more than four and a half times as rapidly. In installed water power per capita the Western States in 1912 had more than four times as much as the remainder of the United States.

An examination of the data collected since the census of 1912 shows that the Western States are still maintaining their commanding position in power development. Primary power installation in the electrical industry in the Western States has increased nearly 47 per cent in the three years since 1912: The average annual increase has been 296,000 horsepower, as compared with 191,000 for the five years 1907 to 1912. Three-fourths of the total increase is water power, in which the average annual additions for the last three years have been approximately twice as great as the average for the preceding five years.

While the use of electric power for all purposes except manufactures is greater in the Western States than in any other section of the country, and this greater use explains in large degree the extent of primary power installation, there is also at the present time a considerable overdevelopment in nearly all the power centers of the Western States. California, Oregon, and Washington in particular show installations far in excess of maximum demands. While there are doubtless many remote sections where small amounts of power could be used if it could be supplied at a reasonable expense, the Western States in general have more power at the present time than they are able to dispose of and the real demand is for more markets rather than for more power.

FINANCIAL OPERATIONS OF CENTRAL STATIONS.

The total investment in commercial central stations in the United States in 1912 as represented by the reported cost of construction for the year was over $2,000,000,000, equivalent to $21.97 per capita and to an average of $301 per horsepower of primary power installation. In marked contrast to these figures are those for municipal stations, which report an aggregate cost of 77 millions and a cost per horsepower installed of $138, less than one-half of the reported cost of commercial stations.[1] While municipal accounting may often fail to include all the items of expense properly chargeable against its undertakings, it is not probable that any considerable part of the difference shown can be explained on this ground. It is very doubtful if amounts reported by commercial stations as "cost of construction, equipment, and real estate" represent actual cost at all in the sense of cash expenditures or their equivalent. Costs in this sense have rarely been kept except in recent years in a few States under the pressure of public-utility legislation. Furthermore, it appears to be the general practice of public-utility corporations to denominate as "cost of construction" the amount which will make assets equal to liabilities on their balance sheets. Since stocks and bonds are carried on such balance sheets at par, the so-called "cost of construction" is scarcely more than net capitalization. In the majority of cases it would be more nearly correct to call this item "assumed present value of properties" than to call it "investment in" or "cost of" such properties.

The funded debts of both municipal and commercial stations bear approximately the same relation to the reported cost of construction for each class of stations; but when it is considered that the reported cost of construction of commercial stations is more than twice as great per horsepower as for municipal stations, it would appear that the latter have been more conservatively financed.

The average rate of interest paid upon funded and floating debt by commercial stations in 1912 was 4.52 per cent. The total par value of outstanding common and preferred stocks of commercial central stations in the same year was approximately $1,100,000,000.[2] Upon this amount the surplus income, after the payment of all expenses, including depreciation, interest on the funded and floating debt, and sinking-fund charges, was sufficient to have paid a dividend of 5.58 per cent.[3] The dividends reported to the Bureau of the Census as having actually been paid upon both classes of stock in 1912 amounted to an average of 3.15 per cent upon the par value of approximately $1,100,000,000.[2] The fact that dividends may not be paid in any year or on any particular property is not necessarily an indication of the prosperity of the business. It is a common practice to utilize surplus earnings which might be available for dividends in extensions to plant, allowing the stockholders to receive their profits not in a cash payment but in an increase in the equity in the property.

The total par value of outstanding common and preferred stock in the 11 Western States in 1912 was approximately $360,000,000.[2] Upon this amount the surplus income was sufficient to have paid a dividend of 2.35 per cent, or less than one-half the average for the United States; but on the other hand, the outstanding stock per horsepower in the Western States was nearly twice as great as for the United States as a whole.

In total reported cost of construction up to 1912, the Middle Atlantic States alone exceed the Pacific States. In actual increase for the period from 1902

[1] See Central Electric Light and Power Stations and Street and Electric Railways, 1912, Bureau of the Census, pp. 64 and 72.

[2] This figure assumes that intercompany holdings are half bonds and half stock. The precise figure is indeterminable because intercompany holdings of stocks and bonds were not reported separately.

[3] See p. 50.

to 1912, a Western State, California, with an increase of 308 million dollars leads all other States by more than 70 million dollars. Only five other States increased as much for the five years, 1907 to 1912, as the State of California for each year of the period. The average rate of increase in plant investment, or cost, of commercial stations in the Western States from 1902 to 1912 was nearly three times as great as for the remainder of the United States, while the investment per capita in 1912 was four and one-half times as great as for the remainder of the United States.

The higher reported cost, higher capitalization, and higher funded debt per primary horsepower in the Western States may be partially explained by the greater proportion of water-power development at considerable distances from the markets supplied and the large investments required for the extensive transmission systems which are such a prominent feature of western power development.

POWER DEVELOPMENT ON THE PUBLIC LANDS.

Of the 1,800,000 water horsepower developed in the Western States in 1915, 30 per cent is in plants occupying national forest lands with some part—power house, water conduit, or diversion reservoirs—of the immediate generating plant. Twelve per cent more are directly dependent upon storage reservoirs owned by the operating companies or by their subsidiaries, and constructed on national forest lands. The total of power developments thus utilizing national forest lands amounts to 42 per cent of the total developed power of the Western States. Nearly 14 per cent in addition either occupies public lands outside the national forest or is directly dependent upon storage reservoirs constructed upon such lands. Fifty-six per cent, therefore, of the total developed water power of the Western States either occupies or is directly dependent upon the use of public lands of the United States, as such occupancy and use is authorized under existing law.

In addition to the operating plants, there are now under construction on the national forests hydroelectric plants with an estimated capacity at minimum stream discharge of 123,000 horsepower. Outstanding final permits authorizing the occupancy and use of national forest lands for hydroelectric plants, the construction of which has not yet started, aggregate 420,000 horsepower, and preliminary permits, maintaining the priority of applicants while surveys and investigations are being conducted, aggregate 354,000 horsepower.

ELECTRIC POWER GENERATED.

Electric power plants supply a service, not a commodity. Since no economic method has yet been devised for storing electric energy in large quantities, electric power generation must be coincident with the demand and vary according to the demand. Every power plant must not only have an installation sufficient to meet the maximum demands, but also must have a certain percentage of excess installation for the purpose of anticipating increase in markets and to insure continuity of service in case of accident. The relation between the average rate and the maximum rate at which power is generated during any given period of time is known as the "load factor" for that period. While the census reports give data by which the average rate may be determined they do not give "peak" demands. It is not possible, therefore, to determine for the United States as a whole or for the several States this "load factor" ratio. Since, however, the census reports do give the installed capacities of the generators, the relation between the average rate of power generation and the generator installation, known as the "capacity load factor," may be determined. This factor for 1912 averaged 0.262 for the United States. If based upon primary power installation instead of generator capacity the average ratio would be 0.241. This means that, on the average, the primary power installed in all these stations was utilized to only 24 per cent of its full capacity.

This capacity load factor, or ratio of utilization of installation, is of greatest importance in the electrical power business. Certain charges upon a power plant, such as interest, insurance, and taxes, and to a considerable degree depreciation, are constant regardless of the amount of the output. Even operating charges become less per unit of output as the output increases. Every means which may be employed to increase the percentage of utilization increases the profits of the business. Different classes of users have different times of maximum demand. The larger the market supplied the greater this diversity. To secure the advantages attendant upon diversity of demand is one of the chief reasons for joining many plants and many markets into one combined system.

CONCENTRATION IN CONTROL OF DEVELOPED POWER.

The concentration in control of electric power is evidenced both by the increase in the amount held by public-service corporations as a class and in the amounts which are held by certain corporations in particular.

Of all the primary power employed in the electrical industries and in manufactures in 1902, 11.2 per cent was installed in commercial central stations. This proportion had risen to 23.8 per cent in 1912, more than doubling in the 10 years. The movement toward concentration is found in all sections of the United States. For the 10 years 1902 to 1912 the rate of concentration was highest in the South Atlantic States, which had three times as great a proportion of primary power in commercial stations in 1912 as in 1902. The extent of concentration was greatest in the Western States. Fifty per cent of all primary power of all kinds in the Mountain States in 1912 was owned by public-service corporations; 54 per cent in the Pacific States. In California the proportion was three-fourths. To-day, only three years later, public-service corporations own 90 per cent of all the primary power in these two groups of States. Although the 1915 data are not sufficiently complete in the other sections, particularly concerning power used in manufactures, to give definite percentages, it is probable that in the South Atlantic States the percentage of power owned by public-utility companies is well above 50 per cent, as compared with less than 20 per cent in 1912.

If inquiry is made into the control by certain corporations, it is found that 85 public-service corporations, through ownership of properties, majority ownership of stock, lease, or direct management, control 68.6 per cent of the total public-service power in the United States; 35 of these 85 control one-half of the total; 16 control one-third; and 10 control one-fourth. Of these 85 corporations, 59 have water-power developments; and of these 59, 18 control 2,356,521 water

horsepower, or more than one-half of the total water power used in public-service operations in the United States. Of these 18 corporations, 9 control more than one-third of the total, and 6 more than one-fourth.

The character of control which is considered with reference to the above figures is definite and complete. It consists either of actual ownership of properties, of majority ownership of stock, of lease, or of direct management.

INTERCORPORATE RELATIONS THROUGH COMMON DIRECTORS.

In connection with this report a study has been made of the interrelations of various public-utility electric corporations with each other through common directors and principal officers. It is extremely difficult to correlate the mass of information and to determine in many instances whether a particular company has the closer association with one or another group of interests. For the purpose of showing the relationships that exist between 156 of the principal holding, managing, and operating companies, 16 charts have been prepared and are presented in Part III of the report. The individual companies which make up the 16 groups control 2,226,000 waterhorse power, or 48.3 per cent of the total used in public-service operations (commercial and municipal central stations and street and electric railways) in the United States, as indicated by the special census made for this report. They also control 4,160,000 steam horsepower or 44.5 per cent of the total used in such public-service operations, giving a combined total of 6,386,000 horsepower, or 45 per cent of all the public-service power in the United States in 1915.

In contradistinction to the corporate relationships shown through ownership, lease, or management, by means of which the connection is definite and direct, the interrelations which are evidenced by common directors are indefinite, and the extent of control can not be quantitatively determined except in those instances where a majority of the directorate is common to two corporations. Where the preceding data show accomplished control, these data show potential control, a marked tendency toward association or community of interests, particularly between the principal holding companies, that can not be viewed without concern.

CONTROL OF UNDEVELOPED WATER POWER.

Time has not been available to make a detailed study of the control of undeveloped water power or to verify the information which has been collected in connection with other branches of inquiry. Such data as have been secured, however, show that 120 public-service corporations out of some 1,500 corporations, the developments of which have been listed in this report, claim to own or control a total of 3,683,000 undeveloped water horsepower or 80 per cent of the total water power at present developed and used in public-service operations.

POTENTIAL POWER RESOURCES OF THE UNITED STATES.

No accurate knowledge is available concerning the potential water-power resources of the United States. Estimates varying from 20 million to 200 million horsepower have been made according to the assumptions on which the several estimates have been based. An accurate estimate of potential water powers would require long-term run-off records on all streams and detailed surveys of the stream channels in order that sufficiently reliable data of water supply might be available, and in order that sections of streams having too little gradient for practical development might be eliminated from consideration. Data of this character are now available on but few streams and probably will not be available for many years to come upon the majority even of those streams which possess considerable potential water power.

The only comprehensive survey of the water resources of the United States is that being conducted under the direction of the United States Geological Survey. The number of gauging stations that can be maintained is limited by the funds available for that purpose. On July 1 of the present year run-off records were being taken at 1,221 stations in the United States, or, on an average, at 1 station for each 2,400 square miles of area. Many of these stations have been too recently established to give reliable data for power estimates, while in large sections of the country, particularly in the mountain regions of the Western States, where the greatest power resources are found, no stations have yet been established. Under such conditions it is evident that estimates of the potential water-power resources of the United States must necessarily be only approximate.

Aside from the lack of available data, estimates will vary greatly according to the assumptions upon which they are made. One estimate may take into consideration only those sites which appear to be economically available for use under present conditions of cost and of markets. Another may take into consideration the ultimate possibilities of the distant future when a demand will exist for all possible power regardless of cost of construction. Between these extremes any number of assumptions with correspondingly varying estimates of potential power may be made.

ESTIMATES OF THE UNITED STATES GEOLOGICAL SURVEY.

The most comprehensive attempt to estimate the power resources of the United States of which the writer has knowledge was that made in 1908 by the United States Geological Survey for the National Conservation Commission. Since these estimates are the ones most often quoted, a brief statement of the basis upon which they were made is of interest.

The approximate character of the estimates is frankly admitted in the opening statement of the report (Water-Supply Paper No. 234, p. 46), which says:

> The surveys and examinations necessary to a thorough and accurate report of the water-power resources of the United States have never been completed. In certain parts of the country the facts are sufficiently well known to make it possible to present a tolerably accurate statement. In other parts the information is fragmentary and, therefore, power estimates must be considered approximate.

Proceeding to a discussion of the basis of the estimates, the report further states:

> The schedule presented in this report gives the amount of available water power according to three classifications: (1) that which may be produced by the minimum flow; (2) the assumed maximum development; and (3) the additional power that may be recovered by developing the available storage capacity in the upland basins and using stored water to compensate the low-water periods. The data as a whole have been considered without reference to present practicability of development or present market. For the pur-

poses of this report it has been assumed that all the power in the United States will some day be required. Such an interpretation is the logical one when natural resources are being considered. In other words, the schedule here presented must be interpreted for the future rather than for the present. The reader should not assume that all the power here shown is economically available today. Much of it, indeed, would be too costly in development to render it of commercial importance under the present conditions of market and the price of fuel power. The schedule shows, therefore, what will be the maximum possibilities in the day when our fuel shall have become so exhausted that the price thereof for production of power is prohibitive, and the people of the country shall be driven to the use of all the water power that can reasonably be produced by the streams.

Consideration has been given to all the conditions that determine the possibilities of power production on the various rivers of the country.

Especially has the slope of the stream channels been scrutinized. Theoretically, of course, the energy developed by the various rivers is that produced by the total fall of the water from source to mouth, but it has not been assumed that, even under ideal conditions of market, all this power will ever be commercially available. The flatter portions of the river channels can never be profitably developed for power and they have not been included in the schedule. The rivers have been divided into sections of varying length, determined by channel slope, and the fall and flow of each section have been obtained from the best available source of information.

* * * * * *

In determining the flow of the various sections the data of flow per square mile * * * have been applied. The drainage areas above the upper and the lower limits of each section have been determined and a mean taken for the whole section. This has been used as a factor along with the flow per square mile in determining the minimum flow for that section. This figure, together with 90 per cent of the total fall from head to foot, has been used to determine theoretical horsepowers, according to the usual formulas. It is obvious that in practice the entire fall along any stretch of river or at any power privilege can not be effectively utilized. In few places can even 90 per cent be utilized at the present time; but, inasmuch as these figures are supposed to cover future as well as present practice, and inasmuch as it may reasonably be assumed that future practice in water-power installation will improve, it is believed that 90 per cent of the fall along any particular power privilege or section may eventually be realized.

The results of calculations of theoretical power on 90 per cent total fall have been reduced 10 per cent to allow for the inefficiency of wheels. It is recognized that 90 per cent efficiency is too high to be used in calculations of power at the present time, 75 or 80 per cent being the usual installation maximum. Here, again, however, we are computing for future conditions as well as present ones, and it may confidently be expected that, with the improvement of turbines, a greater percentage of the theoretical power will be realized on the shaft and improvements will before long render possible a 90 per cent efficiency.

In determining the minimum horsepower, the minimum flow for the lowest two consecutive seven-day periods in each year was determined, and the mean of these values for the period of record was taken as the minimum flow. It is obvious that this is somewhat higher than the absolute minimum, but the latter is usually of so short duration that it does not equal the practicable minimum that may profitably be installed.

The assumed maximum economical development has been determined on the assumption that it is good commercial practice to develop wheel installation up to that amount the continuance of which can be assured during six months of the year, on the assumption that the deficiency in power during the remainder of the year can be profitably provided by the installation of fuel power plants as auxiliaries. In many parts of the country it has been shown conclusively that it is economical to develop up to that amount which can be had continuously during the highest four months of the year, and, while it is probable that there are parts of the country where the limit should be the highest eight or ten months, it is believed that the period used in these schedules is a very conservative average. The minimum weekly flow for each month of the year has been arranged according to magnitude, and the sixth value has been taken as the basis for estimating the power, the mean of these values for the record period in each case being that used in the computations.

Omitting storage from consideration, the final estimates, excluding Pennsylvania, for which figures were not available at the time of the report, and including a portion of the Rio Grande in Mexico and certain drainages in Canada, were a minimum of 36,916,250 horsepower and a maximum of 66,518,500 horsepower.

REPORT OF THE COMMISSIONER OF CORPORATIONS.

The Commissioner of Corporations in his report on Water Power Development in the United States made a review and correction of the survey's estimates. By deducting power not under the control of the United States, by adding amounts for Pennsylvania streams, and by making certain minor corrections, the survey's totals were reduced to 32,083,000 horsepower minimum and 61,678,000 horsepower maximum. The commissioner then says:[1]

A further modification of these estimates should be made for the reason that they are based upon the assumption of 90 per cent efficiency power on the turbine shaft; that is, on the assumption that 90 per cent of the theoretical energy of the fall will be effective on the turbine shaft over and above losses in the head race and in the turbine itself. This is too high a basis. In fact, the Geological Survey admittedly made its estimates on the basis of probable future conditions of efficiency of hydraulic equipment.

* * * * * * *

It is absolutely certain, * * * that an efficiency of 90 per cent on the turbine shaft is at present too high. Many engineers base their estimates on 80 per cent; in fact, that figure may be said to be the conventional one. In actual practice, however, 75 per cent probably more nearly represents present possibilities than does one of 90 per cent, and this lower standard has been adopted in this report.

There is reason to regard these reduced totals as still too liberal for the potential water power of the country, because of the methods employed in computation. The computations are based on the flow and fall of streams.

In calculating the minimum flow of a stream it is the usual practice of engineers to select the minimum over a long period of years, notwithstanding the fact that water-power installations usually exceed the power indicated by such lowest-record flow.

The estimates for the minimum power, prepared by the Geological Survey, are not on the minimum flow for any day, or even on the lowest average for a very few consecutive days during the entire period covered, but are based on the averages of the minimum flow for the two lowest periods of seven consecutive days in each year for seven years or less, according to the length of the period for which records were available. It is obvious that such a minimum must be decidedly higher than the absolute minimum for a given day or the average for a smaller number of consecutive days. This fact was recognized in the estimate of the Geological Survey, but it was stated that the absolute minimum * * * is usually of so short duration that it does not equal the practicable minimum that may profitably be installed.

The "assumed maximum development" rests on quite a different basis. As estimated by the Geological Survey, it is based upon the continuous power indicated by the flow of a stream for the six months in the year (not necessarily six consecutive months) showing the highest flow. An average for six months yearly over a period of seven years was taken in all cases where records covering so long a period were available. The actual method was to arrange the months of each year according to the day of the lowest flow in each. The lowest of the six high months is taken as the basic month. The average flow of the lowest seven consecutive days in this month determines the maximum flow for that year. The average of such maximum figures for all years in the period for which data were available is the assumed maximum used in the calculation.

* * * * *

The potential water power estimated by the survey is undoubtedly further exaggerated by being based, in some cases at least, on 90 per cent of the total fall between two levels. * * * It is evident * * * that estimates of power based upon the total fall in a long section of a stream are likely to be far above what is practically available. Furthermore, a power development at one site frequently precludes the utilization of a considerable fall in the river above or below that site. What proportion of the theoretical power between two points several miles apart can be utilized can be determined only by an engineer's detailed examination.

* * * * *

From the data furnished by the Geological Survey there has been prepared in this bureau a table of this power by States. It should be emphasized that this rearrangement is more or less arbitrary. For example, in many cases the drainage basin of a river extends over several States, and it is difficult to allot the power possibilities of such a basin among the States involved. It is believed,

[1] See p. 51 of the Report of the Commissioner of Corporations, Mar. 4, 1912.

however, that the distribution made is reasonably accurate. The table shows the power as computed by the Geological Survey * * * on the basis of 75 per cent efficiency adopted by this bureau.

The statement of the Commissioner of Corporations above quoted that "in calculating the minimum flow of a stream it is the usual practice of engineers to select a minimum over a long period of years, notwithstanding the fact that water-power installations usually exceed the power indicated by such lowest flow," would have been more correct had he said "invariably exceed the power indicated by such lowest flow."

It is, in fact, the general practice, particularly in the larger power systems having several interconnected plants, to install hydraulic machinery capable of utilizing a stream flow not only far in excess of the absolute minimum, but also much in excess of the minimum as computed by the survey and to make up the deficiency with steam installation. What is known as the "base load" is carried by water power, with its high fixed charges and its low operating cost, while the daily and seasonal peaks are carried by steam power, with high operating charges and low fixed costs. This practice is especially prevalent in the Western States. The Nevada-California Power Co., for example, has developed plants on Bishop Creek to a point 75 per cent in excess of the minimum as computed by the survey. This degree of overdevelopment is made possible in part, though by no means entirely, by the use of certain storage reservoirs. The Southern California Edison Co., without storage facilities, has developed certain streams in southern California to nearly three times the minimum estimated by the survey method. It is probable that on the average western power developments are constructed to utilize not less than the average minimum of the nine high months of the year, an amount intermediate between the minimum and maximum estimates of the Geological Survey.

The relation for the several States between the minimum estimates of potential power and the aggregate installed water horsepower in 1912 may be seen by comparing Table No. 2 and Table No. 3, Part II. In six States—New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, and Delaware—the installed capacity of water wheels in 1912 was in excess of the estimated minimum potential power of the respective States, varying from one-fifth above the minimum in Delaware to nearly six times the minimum in Rhode Island. The installed capacity of water wheels in the six New England States exceeded by 22 per cent the Geological Survey's estimated minimum at 75 per cent efficiency. These instances serve to illustrate the conservativeness of estimates of potential power based upon minimum stream discharge.

CORRECTIONS FOR THE STATE OF IDAHO.

In his segregation of the figures (at 90 per cent efficiency) of the United States Geological Survey for the North Pacific drainage in Idaho, the Commissioner of Corporations, as appears in the tabulation on page 55 of his report, allotted to Idaho 1,394,000 horsepower minimum and 3,080,000 horsepower maximum. The figures, after segregation, were reduced to 75 per cent efficiency. An examination of the original summary sheets of the survey shows that the following amounts were estimated for the several streams in the State of Idaho:

	Minimum.	Maximum.
	Horsepower.	*Horsepower.*
Snake River	1,400,000	2,900,000
Spokane River	50,000	100,000
Clarks Fork	10,000	20,000
Kootenai River	207,000	[illegible]
Total	1,667,000	3,377,000

A reduction of one-sixth in the above totals, in order to put them upon the basis of 75 per cent efficiency, would leave 1,389,000 horsepower minimum and 2,814,000 horsepower maximum instead of 1,162,000 horsepower minimum and 2,567,000 horsepower maximum as actually used by the Commissioner of Corporations. Furthermore, the survey's figures contained no estimates for water powers on the drainages of the St. Joe, Clearwater, Lochsa, Selway, and Salmon Rivers, the latter in particular being, next to the Snake, the most important power stream in the State. The omitted drainages contain, on the same basis as the other estimates and at 75 per cent efficiency, approximately 1,000,000 horsepower minimum and in excess of 2,000,000 horsepower maximum. To cover the Commissioner of Corporation's omission of survey estimates and the survey's omission of power on the five streams named, 1,200,000 horsepower minimum and 2,500,000 horsepower maximum has been added to the figures given by the Commissioner of Corporations, making the total for the State 2,362,000 horsepower minimum and 5,067,000 horsepower maximum. This correction will also change the totals for the United States to 27,943,000 horsepower minimum and 53,905,000 horsepower maximum. Amounts by States and by geographic divisions, using the figures of the Commissioner of Corporations, with corrections for Idaho, appear in Table No. 2, Part II.

RELATION OF ESTIMATES TO PROBABLE UTILIZATION UNDER PRESENT CONDITIONS.

By including all streams however remote from centers of population and those which would produce only a few hundred horsepower, and by including sections of navigable rivers having but slight gradient, the estimates, in general, cover many power sites which could not be developed under existing conditions of cost of construction and steam-power competition even if a demand existed within the limits of economical transmission. In so far as the minimum estimates are, on the other hand, based on an assumed stream discharge much less than it is customary to utilize in practice, the amount of power developed at any particular site will, in general, be greater than indicated by the minimum figures for that site and less than indicated by the maximum figures. Inasmuch as the figures given do not include increases made possible by use of storage—increases that can not be even approximately determined—the minimum figures probably underestimate the total that could be developed under existing conditions of cost and steam-power competition if a market were available. But whether the figures be too great or too small and by how much, they show with reasonable exactness the relative amounts of power in the several States and sections and indicate the magnitude of the potential power resources of the United States.

GEOGRAPHICAL CONCENTRATION OF POTENTIAL WATER POWER.

The most significant fact in connection with these figures is the geographical concentration of water powers. Of the estimated minimum for the entire United States, 72.3 per cent is found in the Mountain and Pacific States—the "public-land" States. More than half of this, or 41.2 per cent, is found in the three Pacific States of Washington, Oregon, and California. Totals and percentages by geographic divisions are as follows:

TABLE NO. 1.—*Estimated minimum and maximum potential water horsepower in the United States—Total and by geographic divisions.*

	Minimum.		Maximum.	
	Estimated horsepower.	Per cent.	Estimated horsepower.	Per cent.
New England	868,000	3.11	1,605,000	2.98
Middle Atlantic	1,357,000	4.86	2,488,000	4.62
East North Central	832,000	2.98	1,604,000	2.98
West North Central	902,000	3.23	1,956,000	3.63
South Atlantic	2,346,000	8.39	4,257,000	7.90
East South Central	1,087,000	3.89	1,964,000	3.64
West South Central	353,000	1.26	822,000	1.52
Mountain	8,694,000	31.11	16,131,000	29.92
Pacific	11,504,000	41.17	23,078,000	42.81
United States	27,943,000	100.00	53,905,000	100.00

Amounts and percentages for each State are given in Table No. 2, and are shown on plate 1, Part II.

POTENTIAL WATER-POWER RESOURCES OF THE NATIONAL FORESTS.

In connection with the review of the Geological Survey's figures on estimated water power an examination has been made of the original detailed estimates prepared by the district engineers of the survey in order to determine the amount of potential water power within the boundaries of the national forests in the several States. The estimates of the survey have also been supplemented by reports made by the district engineers of the Forest Service. Maximum and minimum figures have been computed upon the same basis as used by the survey and reductions have been made to the 75 per cent efficiency basis used by the Commissioner of Corporations. The totals thus found for the United States, exclusive of Alaska and of the purchased areas in the Appalachian, are 8,497,600 horsepower minimum and 16,784,500 horsepower maximum, or 30.4 per cent and 31.3 per cent, respectively, of the minimum and maximum for the United States. The amounts and percentages by geographic divisions and the percentages which the power within the national forests bears to the total potential power for each geographic division are as follows:

TABLE NO. 2.—*Estimated minimum and maximum potential water horsepower in the national forests—Totals and by geographic divisions and the percentage relation of national-forest water powers to all water power in respective groups*

	Minimum.		Maximum.		Per cent of total in each group.	
	Horsepower.	Per cent.	Horsepower.	Per cent.	Minimum.	Maximum.
New England	0	0	0	0	0	0
Middle Atlantic	0	0	0	0	0	0
East North Central	0	0	0	0	0	0
West North Central	12,900	0.15	26,300	0.16	1.43	1.34
South Atlantic	0	0	0	0	0	0
East South Central	0	0	0	0	0	0
West South Central	6,200	0.07	16,600	0.10	1.76	2.02
Mountain	4,163,500	49.00	7,777,600	46.09	47.89	48.22
Pacific	4,315,000	50.78	9,054,000	53.65	37.51	39.23
United States	8,497,600	100.00	16,874,500	100.00	30.41	31.30

Ninety-seven per cent of the net area of the national forests (excluding Alaska and lands purchased under the Weeks law) are in the Pacific and Mountain States. The remaining 3 per cent are found in detached areas in the States of Arkansas, Florida, Kansas, Michigan, Minnesota, Nebraska, North Dakota, Oklahoma, and South Dakota. Of the potential water powers in the national forests, 99¾ per cent is in the Mountain and Pacific States. Water powers on the national forests within these two groups of States amount to 42 per cent of the total estimated minimum and 43 per cent of the total estimated maximum of potential water powers within the groups.

These figures of potential power within the national forests differ somewhat from figures previously given, on account of errors found in the estimates prepared by the Forest Service in 1910. For the purposes of this report and in order that the estimates might be comparable, the endeavor has been made to prepare national-forest estimates on precisely the same basis as the Geological Survey estimates were prepared, but using a 75 per cent efficiency factor. The same caution should be observed in the use of these figures as in the general estimates of the survey. Their chief value is for comparative purposes, as indicating the distribution of national-forest water-power resources and their relation to similar resources of the several States and to the United States as a whole.

DEVELOPED POWER IN THE UNITED STATES.

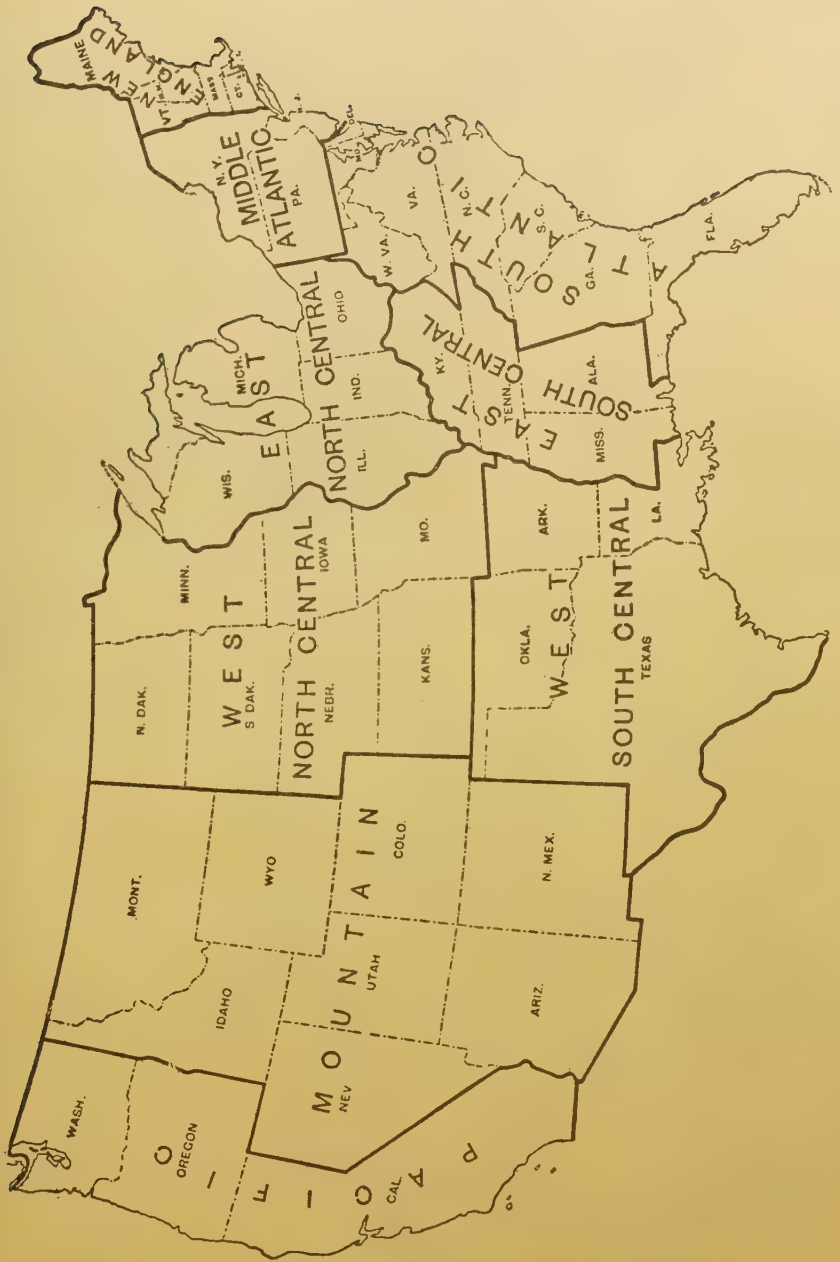
SCOPE OF THE REPORT.

The development of water power is so closely associated with the electrical industry and so related to the other sources of primary power, particularly steam power, that no clear understanding can be had of the problems of water-power development without a parallel study of steam-power and gas-power development, and of the utilization of these three sources of primary power in central electric stations, by street and electric railways, and in manufactures. This section of the report will therefore deal with the extent, distribution, and utilization by States and by geographic divisions of the three sources of primary power, considered both in the aggregate and per capita.

SOURCES OF INFORMATION.

The Bureau of the Census collects at five-year intervals statistics of power development in the United States. Such statistics in sufficient detail for comparative studies are available for the years 1902, 1907, and 1912 for central stations and for street and electric railways. Statistics of power used in manufactures are also collected at similar intervals but for different years. Data for the years 1899, 1904, and 1909 as published in the Census of Manufactures, 1910, have been used in this report. In addition to the census data, information has been secured from the McGraw Electrical Directory, April, 1915; the McGraw's Electric Railway Directory, August, 1914; Moody's Manual of Railroad and Corporation Securities, 1915; Poor's Manual of Public Utilities, 1914; reports of the several State public utilities commissions; reports of the Geological Survey and of the engineers of the Forest Service; engineering periodicals; and an extended correspondence with power companies. The different sources of information do not always agree, but in case of disagreement that information which seems the most reliable has been used.

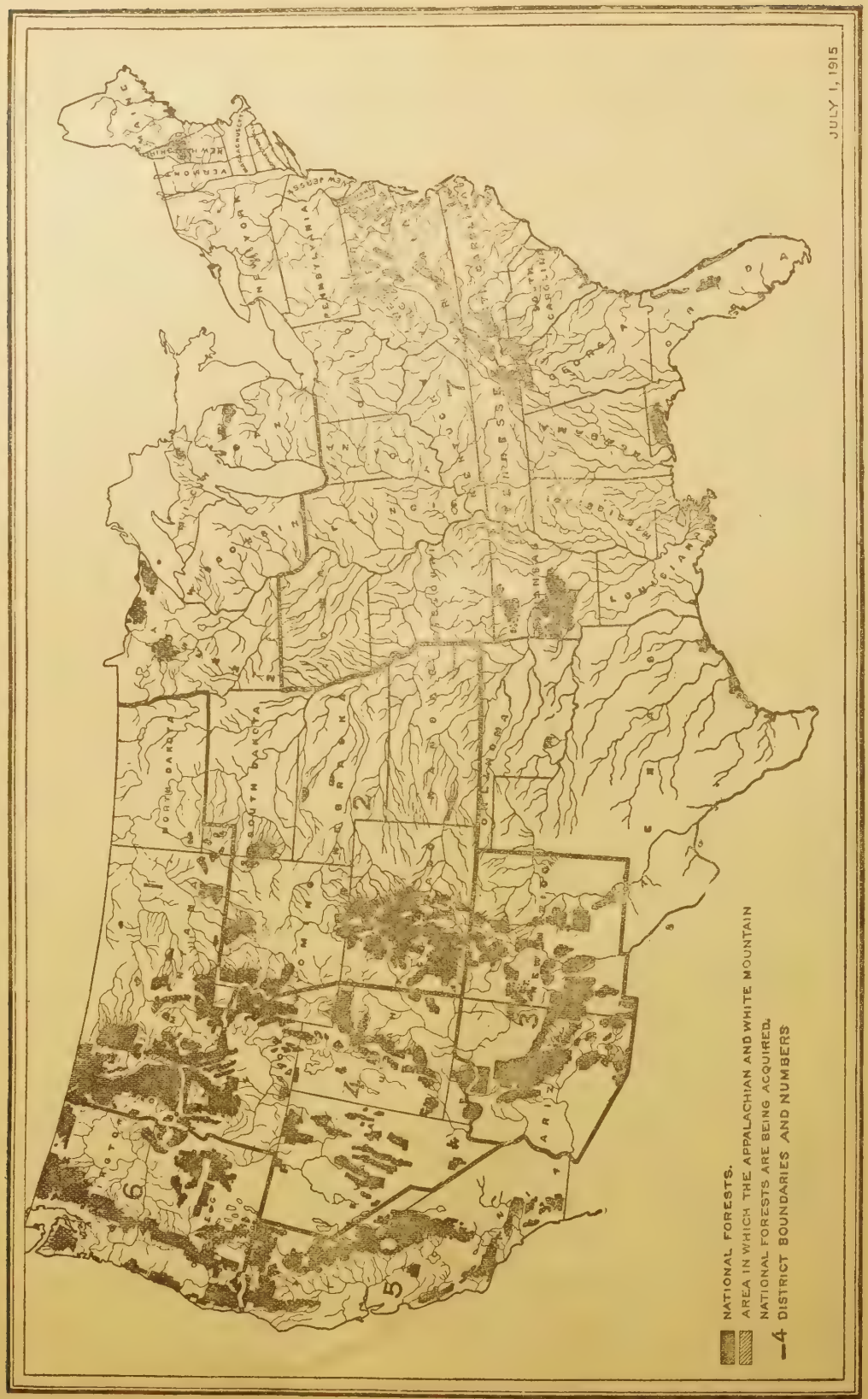
Plate I



GEOGRAPHIC DIVISIONS AS DEFINED BY THE BUREAU OF THE CENSUS.

PLATE II.

NATIONAL FORESTS AND DRAINAGE OF THE UNITED STATES.



REPORTS OF THE BUREAU OF THE CENSUS.

This report contains census data for central electric light and power stations, street and electric railways, and power used in manufactures. These three classifications cover practically all the power used for all purposes in the United States. Classes of uses for which no data have been collected by the Bureau of the Census comprise so small an amount of total power as to be negligible.

CLASSES OF STATIONS.

The 1912 report of the Bureau of the Census for central electric light and power stations and street and electric railways contains the following statement concerning the classification of stations:

> The statistics for central electric stations represent all stations which furnish electrical energy for light, power, and heat; for manufacturing, mining, and other commercial enterprises; for private dwellings; and for public uses, such as lighting streets, parks, etc. The statistics for electric stations operated by electric railways are included whenever it was practicable to secure a separate report for the central-station work. No reports were required for electric stations operated by mining companies, factories, hotels, etc., which consume all current generated, nor for those operated by the Federal Government and State institutions. Neither were reports required for stations that were idle or in course of construction. * * *
>
> The number of central electric stations reported, 5,221, is considerably less than the number reported in commercial directories. This apparent discrepancy is due to the fact that in collecting the census statistics when a number of plants were operated under the same ownership it often was impracticable to secure a separate report for each, and therefore a single report was made to cover the operations of all and they were counted as one plant. In preparing the directories apparently each plant is treated as a separate unit. Although the number of stations in this report is less than the number accounted for in the directories, this difference is due to the census definition of the term "station," which may represent a single electric station or a number of stations which have been combined under the same ownership. These combinations embrace stations of varying characteristics as to primary power, generating and line equipment, and character of service. They have in common, however, the practice of disposing of electrical energy, either direct to consumers for light, heat, or power, or in bulk to some other public-service corporation. All or only a part of the stations embraced in a combination may have generating equipment or the combination may embrace several generating stations which send the electrical energy over transmission lines to a single distributing center.
>
> From year to year more or less of the central electric stations are merged with electric railways. These stations, nevertheless, are properly enumerated in the directories as separate stations, but are included in the census reports as a part of the electric railway industry except when separate reports can be prepared for the electric light and power departments.

* * * * * * *

Statistics for commercial central stations and for street and electric railways in the States of Oregon and Washington in particular and in a lesser degree for certain other States are confused by the classification of stations sometimes as central stations and sometimes as electric railway stations. In the two States named it appears that plants operated by the Portland Railway Light & Power Co. and by the Puget Sound Traction Light & Power Co., each being the largest operating concern in its State, were classed as central stations in 1907 and as electric railway stations in 1912. Both are central station companies which also operate electric railways. Their chief business, however, is in furnishing light and power for sale, and they should more properly have been classified as central stations in 1912. The effect of the change in the classification upon the comparative positions which these two States occupy in these two lines of business appears most clearly in the diagrams given in Part II of this report.

Commercial and municipal stations are distinguished in the reports of the Bureau of the Census as follows:

> Central electric stations are divided into two groups—commercial and municipal. The commercial stations are those operated by individuals, firms, and corporations as distinguished from stations operated by municipalities.
>
> The municipal stations often extend their operations into the commercial field and sell electricity to the general consumer.

UNITS EMPLOYED.

The census statistics for primary power are expressed in horsepower; for generator and motor capacities, in kilowatts, and for amount of power generated, in kilowatt-hours. In order that the data as appearing in this report might be the more readily comparable, generator and motor capacities in kilowatts have been reduced to equivalent horsepower by multiplying by 0.746 the ratio of the horsepower to the kilowatt, and power generated in kilowatt-hours has been reduced to horsepower-years by dividing by 6,535 the number of kilowatt hours in a horsepower year.

GROUPING OF POWER STUDIES.

In the investigation of power development the census statistics of both primary power and power generated have been computed and classified for the purposes of this report under two general groupings, (1) "Sources of power," and (2) "Uses of power." The sources of power considered are:

(*a*) Water power.
(*b*) Steam power.
(*c*) Gas power.

And the uses:

(*d*) Commercial central stations.
(*e*) Municipal central stations.
(*f*) Street and electric railways.
(*g*) Manufactures.

Tables and diagrams giving the data for each class in each group in combination with all the classes in the other group are presented in Part II of this report. Tables are arranged by States and by geographic divisions, using the same order in all tables. In the diagrams the States and geographic divisions are arranged in the order of magnitude either of primary power or of power generated in the group and class under consideration, in order that the relative importance of power development in the several States or groups of States may be more readily apparent. Studies have been made in all cases of primary power and of power output, both in the aggregate and per capita. In both tables and diagrams the figures are given for the three census years of 1902, 1907, and 1912.

In making these studies, special attention has been directed to a determination of the position which the Western States hold in power development in general, and in water-power development in particular. On account of repeated assertions, supported, however, by no proof, the impression has become current that power development, especially water-power development, is "stagnant" in the western or public-land States. To determine whether such assertions have any foundation in fact, a careful analysis has been made of the census data with respect to the total development of the various sources and uses of power in the several sections of the United States, to the rate of increase in such developments by census periods, and to the in-

tensity of such developments as represented by the amount of development in horsepower per thousand of population. The results of this analysis appear in detail in the succeeding pages.

PRIMARY POWER EQUIPMENT.

The primary power equipment, as reported to the Bureau of the Census, includes steam engines and steam turbines, gas and oil engines, and water wheels, water turbines, and water motors. Throughout the report the term "steam power" includes steam engines and steam turbines; "water power," water wheels, turbines, and motors; and "gas power," internal-combustion engines using either gas or oil fuel.

TOTAL PRIMARY POWER—ALL SOURCES, ALL USES.

The total primary power in the United States, in commercial and municipal central stations, street and electric railway stations, and in manufacturing plants, as estimated and reported for the year 1912, was 30,448,246 horsepower, of which 16 per cent was water power, 80 per cent steam power, and 4 per cent gas power. By classes of uses, 22.9 per cent was in commercial central stations, 1.8 per cent in municipal central stations, 12.1 per cent in electric railway stations, and 63.2 per cent in manufacturing plants.

The percentage increase in the several classes of uses was as follows:

	1902–1912	1902–1907	1907–1912
	Per cent.	*Per cent.*	*Per cent.*
Commercial central stations	[1] 314	124	[1] 85
Municipal central stations	250	101	74
Street and electric railways	[1] 170	85	[1] 45
Manufactures	63	30	25
Total primary power	103	47	38

[1] The percentages for commercial central stations are a little too low and those for electric railways a little too high on account of the classification of certain stations in Oregon and Washington by the Bureau of the Census.

And in the several sources of power as follows:

	1902–1912	1902–1907	1907–1912
	Per cent.	*Per cent.*	*Per cent.*
Water power	137	55	52
Steam power	96	44	36
Gas power	155	74	47
Total primary power	103	47	38

By individual States Pennsylvania leads with 3,990,342 horsepower, followed by New York with 3,533,091 horsepower, and Ohio with 2,397,384 horsepower. These three States had nearly a third of the total estimated and reported primary power in the United States in 1912. Four other States—Illinois, Massachusetts, California, and Michigan, in the order named—had over a million horsepower each. These seven States with a total of 15,682,186 horsepower had more than one-half the total for the United States. By geographic divisions the Middle Atlantic States lead, followed in order by the East North Central, the New England, the South Atlantic, the Pacific, and West South Central States.

In rate of increase by periods the Pacific States lead, followed by the Mountain States. These two groups combined increased 102 per cent from 1902 to 1907, 72 per cent from 1907 to 1912, and 248 per cent from 1902 to 1912, as compared with 47 per cent, 38 per cent, and 103 per cent for the United States as a whole. Primary-power installation in the Western States increased 248 per cent for the 10 years 1902 to 1912, or 2.6 times as fast as in the remainder of the United States and three times as fast as in the Eastern States comprised in the three groups along the Atlantic coast.

The percentages of increase for the several geographic divisions by census periods are given in the following table. Details for the several States may be found in Table No. 3 and on plate 3, Part II.

TABLE NO. 3.—*Percentage increases in primary power, all sources, all uses, by geographic divisions.*

	1902–1912	1902–1907	1907–1912
New England	64	27	29
Middle Atlantic	81	40	29
East North Central	101	44	40
West North Central	121	55	42
South Atlantic	133	60	45
East South Central	101	49	35
West South Central	139	62	46
Mountain	201	82	65
Pacific	273	112	76
United States	103	47	38

TOTAL PRIMARY POWER, ALL SOURCES, ALL USES, PER THOUSAND OF POPULATION.

The average power installation in the United States for all purposes and from all sources in 1912 was 318.8 horsepower per thousand of population, an increase from 251.3 horsepower in 1907 and 188.9 porsepower in 1902. On this basis the New England States lead with 577.9 horsepower, nearly twice the average for the United States. The Pacific and Mountain groups combined had 413.4 horsepower. Among the individual States New Hampshire led with 912.6 horsepower per thousand, followed by Maine with 823.7 horsepower, Vermont with 587.7 horsepower, Rhode Island with 582.9 horsepower, Washington with 526.4 horsepower, Massachusetts with 510.2 horsepower, Pennsylvania with 500.8 horsepower, and Oregon with 500.6 horsepower. These eight are the only States with a per capita installation in excess of 0.5 horsepower.

The total primary power installation per thousand of population in the United States for the three years 1912, 1907, and 1902 was distributed among the several classes of uses as follows:

	1912	1907	1902
	Horsepower.	*Horsepower.*	*Horsepower.*
Commercial central stations	73.0	43.2	21.2
Municipal central stations	5.9	3.7	2.0
Street and electric railways	38.4	28.8	17.1
Manufactures	201.6	175.7	148.6
Total primary power	[1] 318.8	[1] 251.3	188.9

[1] Totals do not check in the last place, on account of fractions in the subtotals.

And among the several sources as follows:

	1912	1907	1902
	Horsepower.	*Horsepower.*	*Horsepower.*
Water power	51.0	36.5	25.9
Steam power	254.8	205.2	156.9
Gas power	13.0	9.6	6.1
Total	318.8	251.3	188.9

The total primary power per thousand of population for the several geographic divisions for the years 1912, 1907, and 1902 is given in the following table and diagram (Plate III). Details for the several States appear in Tables Nos. 18, 19, and 5, and on plates 4 and 5, Part II.

TABLE NO. 4.—*Primary power per thousand of population, all sources, all uses, by geographic divisions, in horsepower.*

	1912	1907	1902
New England	577.9	484.6	412.4
Middle Atlantic	419.3	359.4	287.1
East North Central	379.0	288.9	214.5
West North Central	174.0	129.4	88.5
South Atlantic	234.0	173.1	117.1
East South Central	174.8	136.6	97.0
West South Central	146.8	114.0	81.5
Mountain	321.3	234.4	161.8
Pacific	470.6	332.8	207.6
United States	318.8	251.3	188.9

TOTAL WATER POWER, ALL USES.

The total water power in the United States in 1912, as reported for commercial and municipal central stations and street and electric railways, and as estimated for manufacturing plants, was 4,870,320 horsepower, or 16 per cent of the total power from all sources. By classes of uses, 48 per cent was in commercial central stations, 2.7 per cent in municipal central stations, 9.7 per cent in street and electric railway stations, and 39.6 per cent in manufacturing plants.

The percentages of increase of water-power installation in the several classes of uses are as follows:

	1902-1912	1902-1907	1907-1912
	Per cent.	*Per cent.*	*Per cent.*
Commercial central stations	[1] 448	209	[1] 78
Municipal central stations	1,050	171	330
Street and electric railways	[1] 858	87	[1] 412
Manufactures	23	12	10
Total water power	137	55	52

[1] The percentages for commercial central stations are somewhat too low, and of street and electric railways too high, on account of the classification by the Bureau of the Census of certain stations in Oregon and Washington.

By individual States, New York leads, with 896,229 horsepower, followed by California, with 440,243 horsepower, and Maine, with 387,073 horsepower. Five other States, Washington, Wisconsin, South Carolina, Massachusetts, and New Hampshire, had more than 200,000 horsepower.

By geographic divisions, the Middle Atlantic States lead, with 1,109,317 horsepower; New England is second, with 1,059,800 horsepower, and the Pacific States third, with 888,810 horsepower.

In rate of increase from 1902 to 1912 the Pacific States lead, with 505 per cent, followed by the Mountain States, with 353 per cent. These two groups combined increased 451 per cent in the 10-year period, or 4.6 times as fast as in the remainder of the United States, and 5.2 times as fast as in the Eastern States included within the three Atlantic coast groups.

The percentage of increases for the several geographic divisions by periods are given in the following table. Details for the several States may be found in Table No. 6 and on plate 7, Part II:

TABLE NO. 5.—*Percentage increase in water power, all uses, by geographic divisions.*

	1902–1912	1902–1907	1907–1912
New England	49	21	23
Middle Atlantic	80	38	32
East North Central	131	53	51
West North Central	182	116	30
South Atlantic	278	106	83
East South Central	178	41	97
West South Central	168	42	89
Mountain	353	112	113
Pacific	505	187	111
United States	137	55	53

WATER POWER, ALL USES, PER THOUSAND OF POPULATION.

The average water-power installation in the United States in 1912 for all uses was 51 horsepower per thousand of population, an increase from 36.5 horsepower in 1907 and 25.9 horsepower in 1902. In per capita installation, Maine, New Hampshire, and Vermont lead in the order named with 514 horsepower, 468.7 horsepower, and 336.4 horsepower, respectively, per thousand of population. Three other States, Montana, Washington, and Oregon, had over 200 horsepower.

By geographic divisions the Pacific States lead with an average of 193.7 horsepower, followed by New England with 156.6 horsepower, and the Mountain States with 126.4 horsepower. The 11 Western States have an average of 167.9 horsepower, 4.1 times the average for the remainder of the United States and 2.4 times the average for those Eastern States included in the Atlantic coast groups.

The water-power development of the Western States has been and continues to be almost entirely in connection with the electrical industry, an industry which had its beginning scarcely more than 20 years ago. Water-power development in the Eastern States, on the other hand, has long been associated with manufactures. Hundreds if not thousands of small water powers are used for this purpose, and development dates backward for a century. A consideration of this situation makes more significant the remarkable water-power development that took place in the Western States in the 10 years from 1902 to 1912. Data collected since the census reports and which will be considered later show that this rapid rate is still continuing.

Water-power installation per thousand of population for the United States for the years 1912, 1907, and 1902 was divided among the several classes of uses as follows:

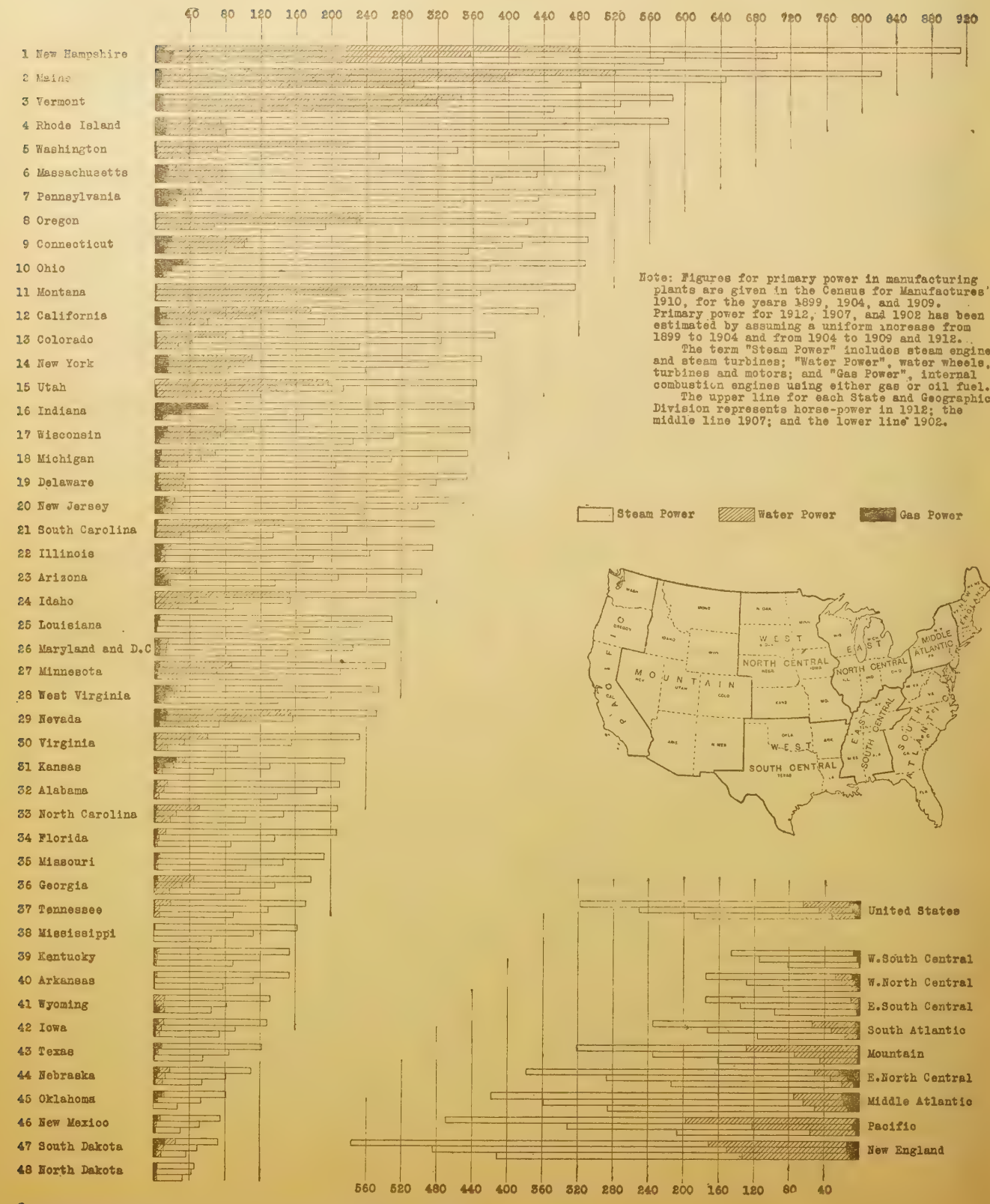
	1912	1907	1902
Commercial central stations	24.5	15.1	5.4
Municipal central stations	1.4	.3	.1
Street electric railways	4.9	1.0	.6
Manufactures	20.2	20.1	19.8
Total water power	51.0	36.5	25.9

Water power per thousand of population for the several geographic divisions for the years 1912, 1907, and 1902, is given in the following table and diagram (Plate IV). Details for the several States may be found in Table No. 7 and on plate 8, Part II.

TOTAL PRIMARY POWER PER THOUSAND OF POPULATION IN 1912, 1907 AND 1902

PLATE XII

Steam Power, Water Power, and Gas Power
By States and By Geographic Divisions
In Horse-Power

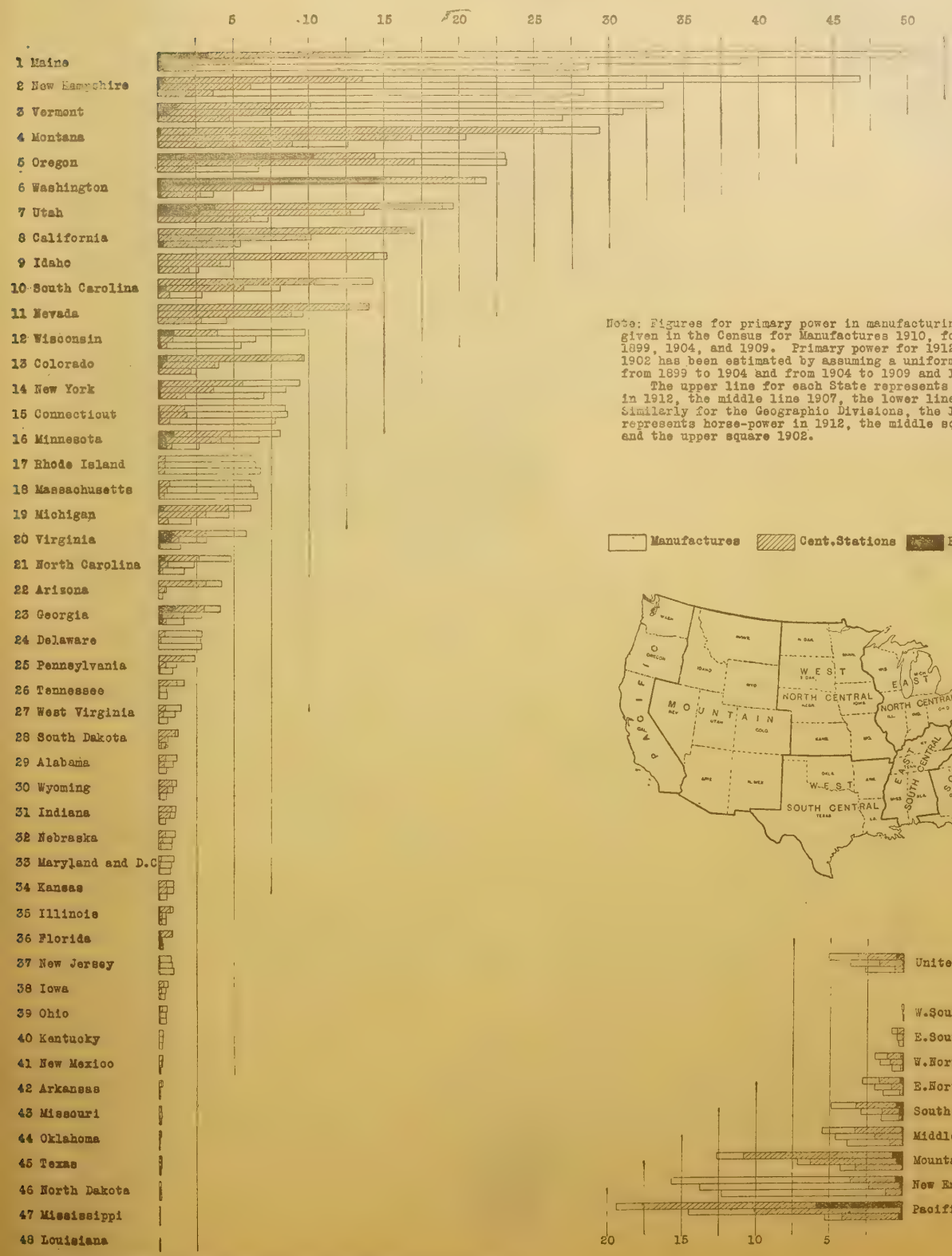


To accompany report on Sen. Res. No. 544, 62rd. Cong., 3rd. Sess.

PLATE IV

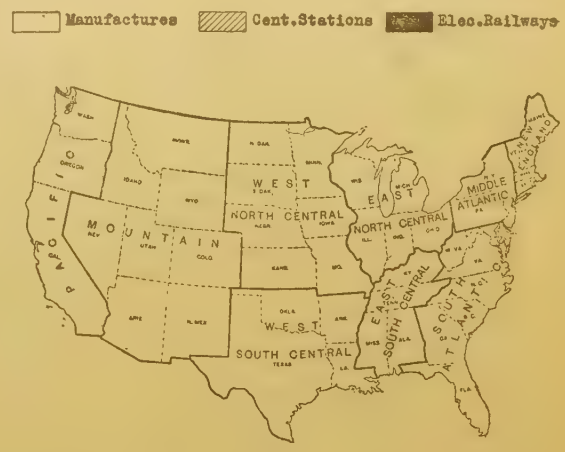
WATER POWER - INSTALLED CAPACITY PER THOUSAND OF POPULATION IN 1912, 1907 and 1902

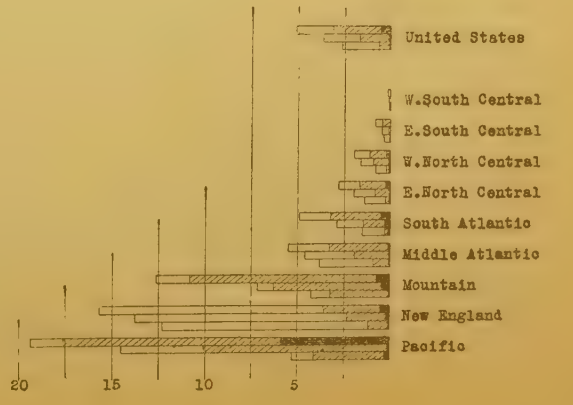
In Commercial and Municipal Central Stations, Street and Electric Railways, and Manufacturing Plants
By States and by Geographic Divisions
In Horse-Power



Note: Figures for primary power in manufacturing plants are given in the Census for Manufactures 1910, for the years 1899, 1904, and 1909. Primary power for 1912, 1907, and 1902 has been estimated by assuming a uniform increase from 1899 to 1904 and from 1904 to 1909 and 1912.

The upper line for each State represents horse-power in 1912, the middle line 1907, the lower line 1902. Similarly for the Geographic Divisions, the lower square represents horse-power in 1912, the middle square 1907, and the upper square 1902.





To accompany report on Sen. Res. No. 544, 62rd. Cong., 3rd. Sess.

TABLE NO. 6.—*Water power per thousand of population, all uses, by geographic divisions.*

	1912	1907	1902
New England	156.6	137.4	122.7
Middle Atlantic	54.9	45.9	38.0
East North Central	27.8	19.6	13.8
West North Central	19.5	15.9	7.8
South Atlantic	48.9	28.7	15.1
East South Central	8.1	4.3	3.3
West South Central	1.3	.7	.6
Mountain	126.4	71.4	42.4
Pacific	193.7	114.5	52.7
United States	51.0	36.5	25.9

STEAM POWER, ALL USES.

The total steam power in the United States in 1912 in commercial and municipal central stations, street and electric railways, and in manufacturing plants, as estimated and reported for the year, was 24,339,819 horsepower, or 80 per cent of the total power from all sources. By classes of uses 18.6 per cent was in commercial central stations, 1.7 per cent in municipal central stations, 13 per cent in street and electric railway stations, and 66.7 per cent in manufacturing plants.

The percentages of increase in steam-power installation, according to the several classes of uses, are as follows:

	1902–1912	1902–1907	1907–1912
	Per cent.	*Per cent.*	*Per cent.*
Commercial central stations	[1] 265	93	[1] 88
Municipal central stations	175	93	43
Street and electric railways	[1] 142	84	[1] 32
Manufactures	66	32	26
Total steam power	96	44	36

[1] The percentages for commercial central stations are somewhat too low and for street and electric railways somewhat too high, on account of the classification of certain central stations in Oregon and Washington by the Bureau of the Census.

Among the individual States, Pennsylvania was first, with an estimated and reported installation of 3,565,991 horsepower, one-seventh of the total for the United States. The three States of Pennsylvania, New York, and Ohio had a combined installation of 8,268,888 horsepower, or more than a third of the total for the United States. Two other States, Illinois and Massachusetts, had over a million horsepower each.

By geographic divisions the Middle Atlantic and East North Central States lead with a combined installation of 13,089,685 horsepower, or 54 per cent of the total for the United States. The Mountain and Pacific States show the least installation, with 547,536 horsepower and 1,254,375 horsepower, respectively. Their combined steam-power installation is only 7.4 per cent of the total for the United States.

In rate of increase from 1902 to 1912, the Pacific and Mountain States lead, with 198 per cent and 151 per cent, respectively, as compared with increases of 353 per cent and 505 per cent in water-power installation. While steam is the chief source of power in the Eastern and Central States, and in the majority of power systems the only source of power, in the Western States steam power has been developed for the most part to furnish auxiliary service in connection with hydroelectric-power systems. This explains in large measure the more rapid rate of increase in steam-power development in the Western States than in other sections.

The percentages of increase for the several geographic divisions by census periods are given in the following table. Details for the several States may be found in Table No. 8 and on plate 12, Part II.

TABLE NO. 7.—*Percentage increases in steam power, all uses, by geographic divisions.*

	1902–1912	1902–1907	1907–1912
New England	70	29	31
Middle Atlantic	81	41	29
East North Central	93	41	37
West North Central	111	48	42
South Atlantic	110	53	38
East South Central	97	49	32
West South Central	130	60	44
Mountain	151	74	45
Pacific	198	84	62
United States	96	44	36

STEAM POWER, ALL USES, PER THOUSAND OF POPULATION.

The average steam installation in the United States, as estimated and reported for the year 1912, was 254.8 horsepower per thousand of population, an increase from 205.2 horsepower in 1907 and 156.9 horsepower in 1902. The New England States occupied first place with 406.8 horsepower, 1.6 times the average for the United States. The average for the 11 Western States is 242.3 horsepower, a little below the average for the United States; for the remainder of the United States it is 255.8 horsepower, and for the three eastern groups 302.3 horsepower per thousand.

The total steam power installation per thousand of population in 1912, 1907, and 1902 was distributed among the several classes of uses as follows:

	1912	1907	1902
	Horsepower.	*Horsepower.*	*Horsepower.*
Commercial central stations	47.5	27.5	15.7
Municipal central stations	4.3	3.2	1.9
Street and electric railways	33.2	27.6	16.5
Manufactures	168.9	146.9	122.8
Total	[1] 254.8	205.2	156.9

[1] Total does not check in last place on account of fractions in subtotals.

The total steam power per thousand of population for the several geographic divisions for the years 1912, 1907, and 1902 is given in the following table and diagram (Plate V).

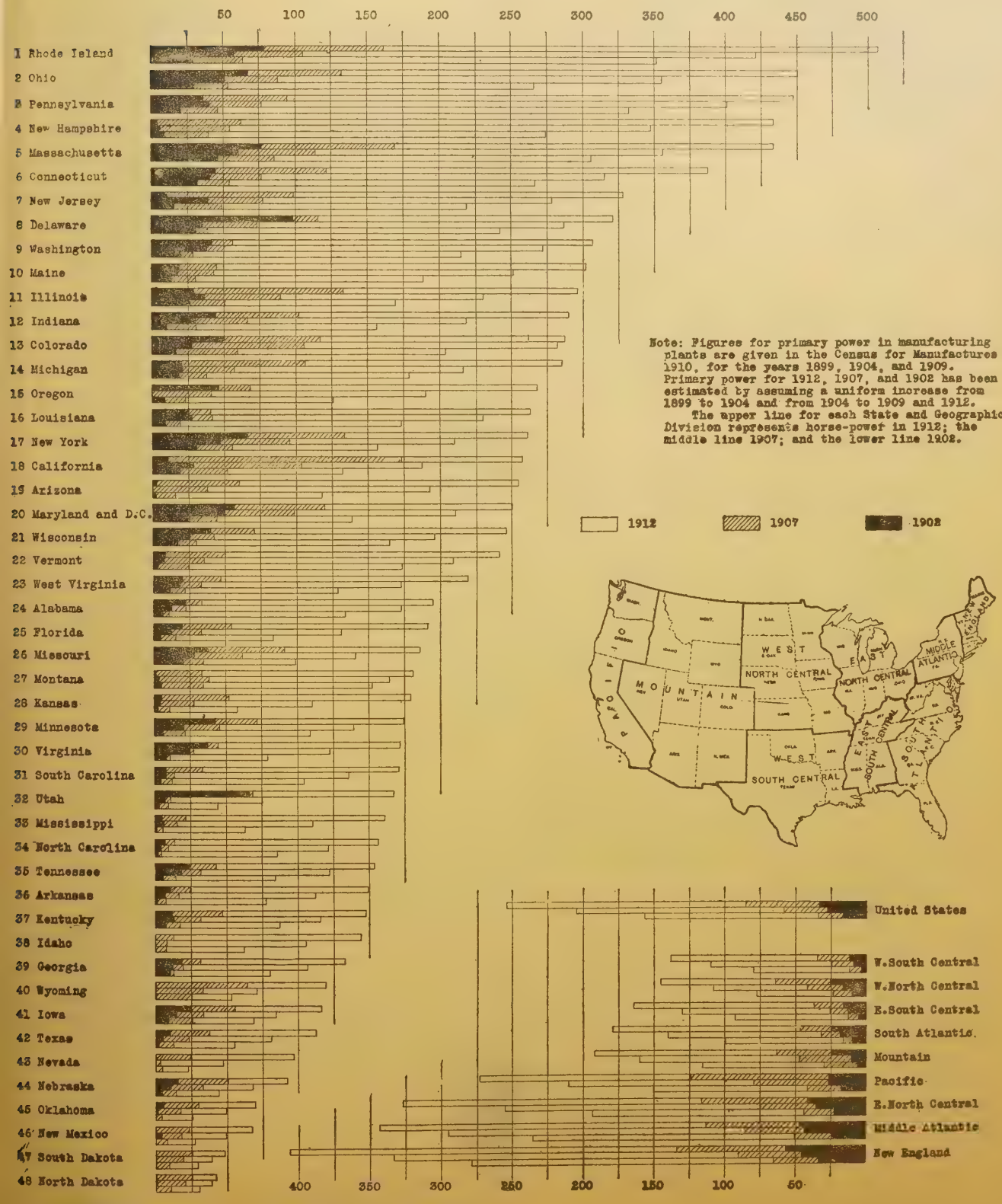
Details for the several States appear in Table No. 9 and on plate 13, Part II.

TABLE NO. 8.—*Steam power per thousand of population, all uses, by geographic divisions.*

	1912	1907	1902
New England	406.8	333.6	278.8
Middle Atlantic	343.8	295.4	235.6
East North Central	327.9	255.1	193.6
West North Central	145.5	108.3	77.6
South Atlantic	179.6	140.6	99.7
East South Central	164.2	130.8	92.9
West South Central	138.5	110.1	80.0
Mountain	192.2	160.2	116.0
Pacific	273.3	210.1	150.7
United States	254.8	205.2	156.9

STEAM POWER - INSTALLED CAPACITY PER THOUSAND OF POPULATION IN 1912, 1907 AND 1902 PLATE V

In Commercial and Municipal Central Stations, Street and Electric Railways, and Manufacturing Plants
By States and by Geographic Divisions
In Horse-Power



To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

GAS POWER, ALL USES.

The total gas power in the United States in 1912 as reported for commercial and municipal central stations and street and electric railways and as estimated for manufacturing plants was 1,238,107 horsepower, or 4 per cent of the total power from all sources. By classes of uses 7.2 per cent was in commercial central stations, 1.8 per cent in municipal central stations, 2 per cent in street and electric railways, and 89 per cent in manufactures.

The percentages of increase in the several classes of uses are as follows:

	1902–1912	1902–1907	1907–1912
	Per cent.	*Per cent.*	*Per cent.*
Commercial central stations	690	334	82
Municipal central stations	2,240	506	258
Street and electric railways	1,160	798	48
Manufactures	133	63	43
Total gas power	155	74	47

By individual States Pennsylvania leads, with 233,395 horsepower. Only five other States, Indiana, Ohio, New York, Illinois, and Massachusetts, had over 50,000 horsepower. By geographic divisions the East North Central States lead with 436,943 horsepower, followed closely by the Middle Atlantic States with 415,335 horsepower. These two groups had 69 per cent of the total in the United States.

In rate of increase for the 10 years, 1902–1912, the West South Central States lead with 990 per cent. This is due to increases in Oklahoma and Texas between 1907 and 1912, and chiefly in the estimated increase in manufacturing use. One group, the Pacific States, shows a reduction for 1907 to 1912, due to the falling off in commercial central station use for the period.

As indicating the actual total use of gas and oil engines the figures as given in the census report can not be considered as even approximately correct. An unknown but very considerable amount of gas power is used for irrigation pumping in the Pacific and Mountain States and for drainage purposes in the South Central States. These uses are not included in the census reports. While a certain amount of steam power is also used for such purposes, as well as for other purposes not reported by the census, the percentage error caused by the omission is very small. With gas power, on the other hand, the error is undoubtedly very large in the groups of States named, probably amounting to several hundred per cent.

Rates of increase in the amounts as estimated and reported are given by geographic divisions in the following table. Details may be found in Table No. 10 and on plate 16, Part II.

TABLE No. 9.—*Percentage increase in gas power, all uses, by geographic divisions.*

	1902–1912	1902–1907	1907–1912
New England	55	34	15
Middle Atlantic	90	51	26
East North Central	275	114	75
West North Central	235	80	86
South Atlantic	181	81	55
East South Central	251	99	76
West South Central	990	341	147
Mountain	2f	7	13
Pacific	40	156	−83
United States	155	74	47

GAS POWER, ALL USES, PER THOUSAND OF POPULATION.

The average gas power installed in the United States in 1912, as reported for central stations and electric railways and as estimated for manufactures was 13 horsepower, an increase from 9.6 horsepower in 1907 and 6.1 horsepower in 1902. In per capita installation Indiana leads with 60.3 horsepower per thousand of population. Only four other States, Ohio, Pennsylvania, Kansas, and West Virginia, had in excess of 20 horsepower per thousand.

By geographic divisions the East North Central, Middle Atlantic, and New England States lead in the order named with 23.3 horsepower, 20.6 horsepower, and 14.5 horsepower, respectively. The average installation for the United States was divided among the several classes of uses for the three census periods as follows:

	1912	1907	1902
Commercial central stations	0.9	0.5	0.2
Municipal central stations	.2	.1	.0
Street and electric railways	.3	.2	.0
Manufactures	11.6	8.8	5.9
Total gas power	13.0	9.6	6.1

Gas power per thousand of population for the several geographic divisions, as reported and estimated for the years 1912, 1907, and 1902, is given in the following table and diagram (Plate VI). Details for the several States may be found in Table No. 11 and on plate 16, Part II.

TABLE No. 10.—*Gas power per thousand of population, all uses, by geographic divisions.*

	1912	1907	1902
New England	14.5	13.6	10.9
Middle Atlantic	20.6	18.1	13.5
East North Central	23.3	14.2	7.1
West North Central	9.0	5.2	3.0
South Atlantic	5.5	3.8	2.3
East South Central	2.4	1.5	.8
West South Central	7.0	3.2	.9
Mountain	2.7	2.8	3.4
Pacific	3.6	8.2	4.2
United States	13.0	9.6	6.1

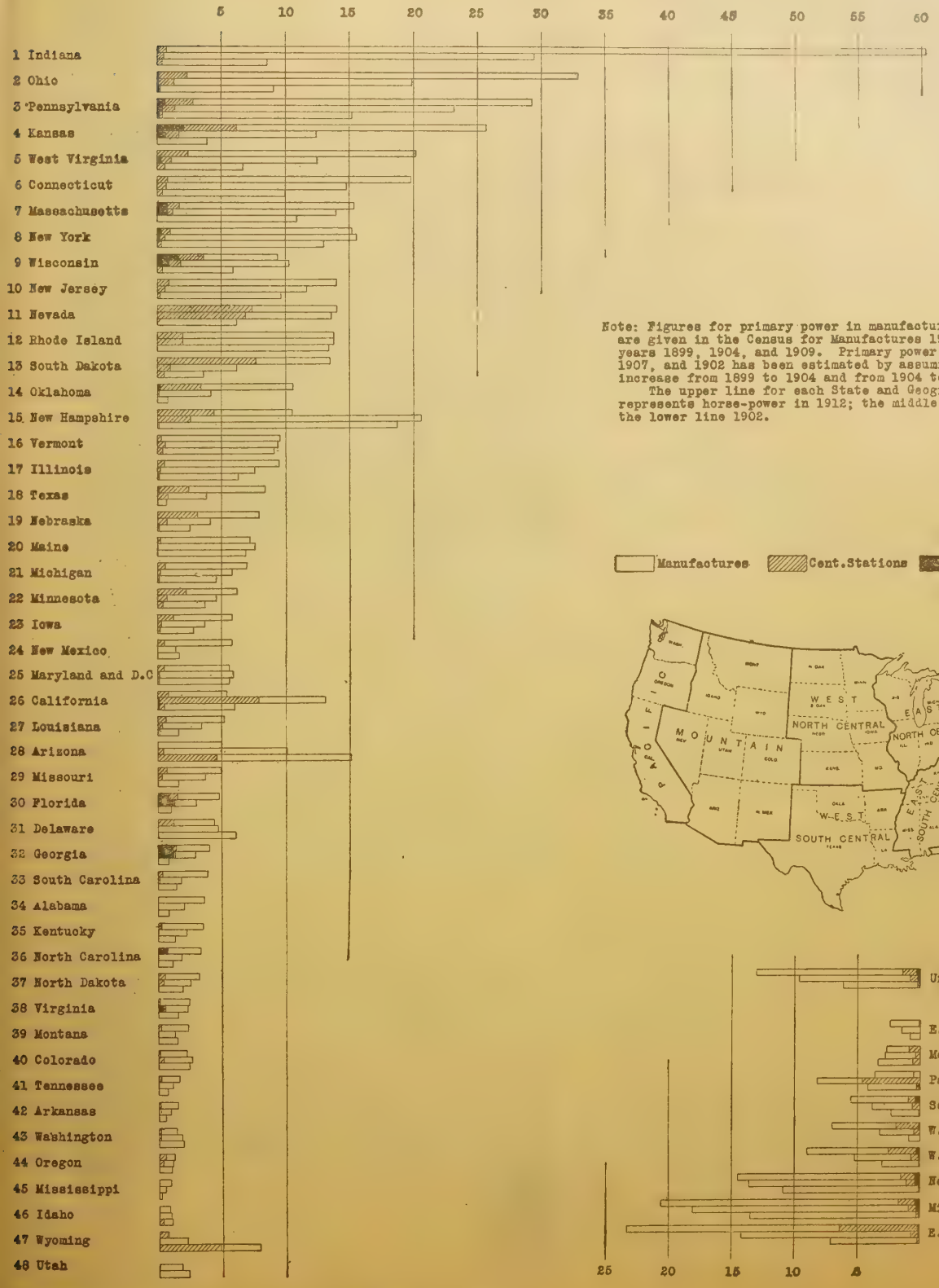
COMMERCIAL CENTRAL STATIONS.

Total primary power.—The total of steam, water, and gas power, used in commercial central stations in 1912 aggregated 6,969,320 horsepower, or 23 per cent of the total primary power for all purposes—central stations, electric railways and manufactures—estimated and reported for the year. Of the total in 1912, 33.6 per cent was water power; 65.1 per cent steam power; and 1.3 per cent gas power. New York leads with a total of 1,144,308 horsepower, followed by California with 838,693 horsepower, and Pennsylvania with 600,554 horsepower. The three leading groups of States are the Middle Atlantic with 1,981,623 horsepower, East North Central with 1,510,373 horsepower, and the Pacific States with 918,294 horsepower.

The percentages of increase by geographic divisions for the census periods are shown in the following table. Details for the several States can be found in Table No. 12 and on plate 17, Part II.

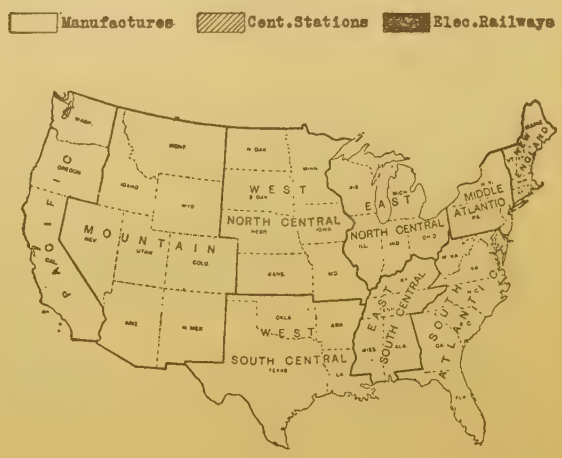
GAS AND OIL ENGINES - INSTALLED CAPACITY PER THOUSAND OF POPULATION IN 1912, 1907 AND 1902 PLATE VI

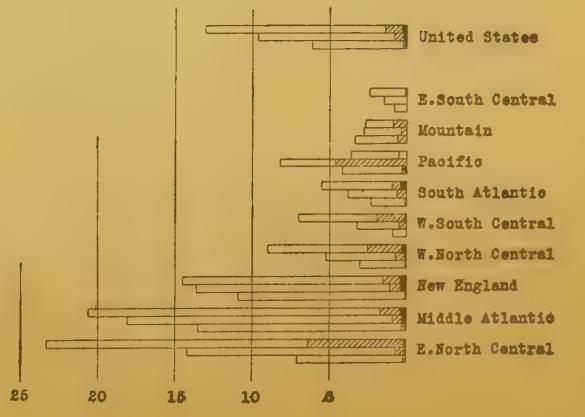
In Commercial and Municipal Central Stations, Street and Electric Railways, and Manufacturing Plants
By States and by Geographic Divisions
In Horse-Power



Note: Figures for primary power in manufacturing plants are given in the Census for Manufactures 1910, for the years 1899, 1904, and 1909. Primary power for 1912, 1907, and 1902 has been estimated by assuming a uniform increase from 1899 to 1904 and from 1904 to 1909 and 1912.

The upper line for each State and Geographic Division represents horse-power in 1912; the middle line 1907; and the lower line 1902.





To accompany report on Sen. Res. No. 644, 63rd. Cong., 3rd. Sess.

TABLE NO. 11.—*Percentages of increase in primary power, commercial central stations, by geographic divisions.*

	1902–1912	1902–1907	1907–1912
New England	192	64	79
Middle Atlantic	258	97	82
East North Central	387	131	111
West North Central	308	158	58
South Atlantic	590	222	118
East South Central	289	92	103
West South Central	258	112	69
Mountain	297	111	88
Pacific	[1] 433	229	[1] 62
United States	[1] 314	124	[1] 85

[1] These percentages are too small on account of the classification by the Bureau of the Census of considerable amounts of commercial central-station power as electric-railway power in the States of Oregon and Washington in 1912.

Primary power per thousand of population.—The data for power development are most significant when reduced to amounts per capita, for on this basis they show the intensity of development. On this basis California leads with 325.4 horsepower per thousand, or four and one-half (4.46) times the average for the United States, followed by Montana with 282.9 horsepower, or nearly four (3.90) times the average for the United States. The highest amount outside of the Pacific and Mountain States is in New Hampshire, which has 190.9 horsepower per thousand of population.

Amounts for the several groups of States and for the United States appear in the following table. Figures for the Pacific group in 1912 are too low on account of incorrect classification in certain States by the Bureau of the Census, as heretofore noted. Figures for primary power in commercial central stations in horsepower per thousand of population are given in the first three columns of Table 18 and are shown on plate 18, Part II.

There is twice as much primary power per capita in central station development in the Mountain States and probably more than three times as much in the Pacific States as in the United States as a whole. The relative intensity of development of electric power in the several sections will appear more clearly in the consideration of the combined power developments of commercial central stations, municipal central stations, and street and electric railways, which will be discussed later.

TABLE NO. 12.—*Primary power per thousand of population, commercial central stations, by geographic divisions, in horsepower.*

	1912	1907	1902
New England	101.8	61.6	40.7
Middle Atlantic	98.2	59.9	34.0
East North Central	80.5	40.7	18.8
West North Central	43.4	29.1	11.9
South Atlantic	44.0	22.1	7.4
East South Central	20.9	10.8	6.0
West South Central	21.7	14.7	8.1
Mountain	146.3	93.6	55.9
Pacific	200.1	153.8	61.8
United States	73.0	43.2	21.2

Water power.—The total water-power installation of commercial central stations in 1912 was 2,340,820 horsepower, or 48 per cent of the total water-power development for all purposes in the United States. New York shows the largest development with 510,521 horsepower, followed by California with 430,312 horsepower. Considering development by sections, the Middle Atlantic States lead with 643,677 horsepower, followed by the Pacific States with 476,476 horsepower. The total for the Pacific group is too low on account of the classification by the Bureau of the Census of certain commercial central stations as electric railway stations in 1912. This classification also affects the total for the United States.

The detailed data for the several States may be found in Table No. 12 and on plate 17, Part II.

Steam power.—The installation in commercial central stations was reported as 4,539,866 horsepower in 1912, or 18.6 per cent of the total steam power developed for all purposes in the United States. It was, however, nearly twice the water-power installation in such stations. In steam power as in water power New York leads with 628,486 horsepower, followed by Illinois with 582,506 horsepower, Pennsylvania with 452,767 horsepower, and California with 406,401 horsepower. By geographic divisions the Middle Atlantic States lead with 1,314,357 horsepower, followed closely by the East North Central States with 1,269,337 horsepower. Next in order are the New England States with 483,612 horsepower and the Pacific States with 439,463 horsepower. Were it not for the classification of stations as referred to above the Pacific States would probably rank ahead of the New England States.

The ratio between steam power and water power in the several groups is of interest. While the ratio of steam power to water power is 5.65 in the East North Central States, 2.41 in the New England States, and 2.04 in the Middle Atlantic States, it is only 0.92 in the Pacific States and 0.34 in the Mountain States, showing a relatively far greater use of water power in the Western States than in the Eastern States.

Details for the several States may be found in Table No. 12 and on plate 17, Part II.

Gas power.—This has found but small use in commercial central station development. The total for the United States is but 88,364 horsepower, less than 4 per cent of the water power and about 2 per cent of the steam power. Pennsylvania leads with 16,088 horsepower, 18 per cent of the total within the United States. Texas is second with 9,339 horsepower, Oklahoma third with 5,320 horsepower, and New York fourth with 5,301 horsepower. These four States have over 40 per cent of the total gas power in commercial central stations. Although California led in 1907 with 16,585 horsepower, the amount was reduced in 1912 to 1,980 horsepower.

Details for the several States may be found in Table No. 12 and plate 17, Part II.

MUNICIPAL CENTRAL STATIONS.

Total primary power.—The total primary power in municipal central stations in 1912 was 559,328 horsepower or 12 per cent of that in commercial central stations. Of this total, 23.5 per cent was water power, 72.5 per cent steam power, and 4 per cent gas power. The percentages of steam power and of gas power are greater and of water power less than in commercial stations. The upper Mississippi Valley leads in municipal power development, although Washington has the largest installation of any single State. The highest rate of increase in municipal power development is found in the Mountain and Pacific States, the former increasing 1,960 per cent and the latter 2,280 per cent in the 10 years from 1902 to 1912.

The percentage increases by periods for the several geographic divisions are shown in the following table. Detailed figures for the several States are given in Table No. 13 and on plate 20, Part II.

TABLE NO. 13.—*Percentage increase in primary power, municipal central stations, by geographic divisions.*

	1902–1912	1902–1907	1907–1912
New England	302	150	61
Middle Atlantic	108	84	13
East North Central	139	62	48
West North Central	209	98	56
South Atlantic	438	194	83
East South Central	289	154	49
West South Central	526	143	158
Mountain	1,960	774	136
Pacific	2,280	272	540
United States	250	101	74

Primary power per thousand of population.—In proportion to population the State of Washington had in 1912 more than twice as much municipal power as any other State, or 44.9 horsepower per thousand. Florida is second, with 21.4 horsepower, and Vermont third, with 18.9 horsepower. But three other States—Indiana, Michigan, and Utah—have more than 10 horsepower per thousand of population. By groups the Pacific States lead, having nearly three times the average for the United States.

Amounts by geographic division for three census years are given in the following table. Detailed figures for the several States may be found in Table No. 18 and plate 21, Part II.

TABLE NO. 14.—*Primary power per thousand of population, municipal central stations, by geographic divisions, in horsepower.*

	1912	1907	1902
New England	6.8	4.6	2.0
Middle Atlantic	1.6	1.5	.9
East North Central	9.6	6.9	4.6
West North Central	7.1	4.8	2.6
South Atlantic	5.3	3.1	1.1
East South Central	4.2	3.0	1.2
West South Central	3.4	1.5	.7
Mountain	3.6	1.8	.3
Pacific	15.7	3.0	1.1
United States	5.9	3.7	2.0

Water power.—The total amount of water power developed by municipal stations in 1912 was 130,261 horsepower or only 5.5 per cent of the amount developed in commercial stations. Forty-four per cent of the total for the United States, or 57,235 horsepower, was in the one State of Washington, and 65 per cent in the two States of Washington and Illinois. By geographic divisions the Pacific States lead with 62,979 horsepower, followed by the East North Central States with 39,762 horsepower. These two groups have 79 per cent of the total for the United States.

Detailed figures by States are given in Table No. 13 and on plate 17, Part II.

Steam power.—The installation in municipal stations aggregated 406,666 horsepower in 1912, more than three times the water-power installation. With the exception of Illinois, with its municipal developments on the Chicago Drainage Canal, the States of the upper Mississippi Valley, where the greatest municipal development is found, depend almost entirely upon steam power. In the Pacific States, on the other hand, steam power is but little used, amounting to only one-eighth of the total. In Washington, which has the highest municipal development of any single State, water power furnishes over 99 per cent of the total installation.

Gas power.—Although increasing more than 2.5 times in the five years 1907 to 1912, gas power afforded in 1912 but 4 per cent of the total installation in municipal stations. More than one-half of the total for the United States is found in the two North Central groups of States.

STREET AND ELECTRIC RAILWAYS.

As stated hitherto on page 20 the census statistics for street and electric railways are not always clearly distinguished from those for commercial central stations. This is particularly true of the States of Washington and Oregon. The statistics for street and electric railways also include electrically operated divisions of steam roads, but "only in cases where full reports could be made therefor separately from those for the steam railroad operations."

"Some companies reported the same tracks as operated by both steam and electricity and others that the traffic and operating statistics of an electrically operated branch did not permit of segregation from those pertaining to the main line operated by steam. Statistics for these roads are therefore not included in the general statistics for electric railways. There are also excluded from the general statistics the Chicago Tunnel Co., operating the system of narrow-guage freight tunnels under the streets of Chicago, the Bingham Central Railway of Utah, a narrow-guage electric tunnel road serving mines, and the road owned by the State of North Dakota, at Bismarck, and operated in connection with the State capital."

Total primary power—steam, water, and gas power—operated by street and electric railway companies in 1912 aggregated 3,665,051 horsepower, slightly over one-half the amount operated by commercial central stations. Of the total in 1912, 12.8 per cent was water power, 86.5 per cent steam power, and 0.6 per cent gas power. New York leads with 655,720 horsepower, nearly twice as much as the next largest, Ohio, with 333,075 horsepower. Only three other States—Pennsylvania, Massachusetts, and Washington—have over 200,000 horsepower, and Washington's total contains a considerable amount that should have been credited to commercial central stations. The two leading groups of States are the Middle Atlantic and the East North Central, the former with 977,703 horsepower and the latter with 824,707 horsepower. The Pacific group, with 388,578 horsepower, is too large on account of the inclusion of central-station power in Washington and Oregon. This inclusion also affects the total for the United States. Five States—South Dakota, Idaho, Wyoming, New Mexico, and Nevada—reported no stations operated by electric railway companies in 1912, the power being purchased from central stations.

The percentages of increase by geographic divisions are given in the following table. Details for the several States may be found in Table No. 14 and on plate 22, Part II.

[1] Central electric stations and street and electric railways, 1912, Bureau of the Census, p. 179.

TABLE No. 15.—*Percentages of increase in primary power, street and electric railways, by geographic divisions.*

	1902–1912	1902–1907	1907–1912
New England	112	52	39
Middle Atlantic	138	97	21
East North Central	117	67	30
West North Central	183	69	68
South Atlantic	222	116	49
East South Central	226	150	31
West South Central	377	218	50
Mountain	616	183	153
Pacific	[1] 580	81	[1] 284
United States	[1] 170	85	[1] 45

[1] These percentages are somewhat too large on account of the inclusion by the Bureau of the Census of a considerable amount of commercial central station power as electric railway power in the States of Oregon and Washington in 1912.

Primary power per thousand of population.—In proportion to population the three States of Washington, Oregon, and Utah lead all others, with 191.7 horsepower, 149.8 horsepower, and 104.5 horsepower per thousand of population. Both Washington and Oregon, and probably Utah, are too high on account of the inclusion of certain amounts of commercial central station power in the electric railway figures. These States, however, would undoubtedly lead, even with corrected figures.

Detailed figures for the several States are given in Table No. 18 and on plate 22, Part II. Totals for the geographic divisions are given in the following table:

TABLE No. 16.—*Primary power per thousand of population, street and electric railways, by geographic divisions, in horsepower.*

	1912	1907	1902
New England	62.3	48.2	34.3
Middle Atlantic	48.4	44.4	25.2
East North Central	44.0	36.1	23.1
West North Central	27.5	17.3	10.9
South Atlantic	30.4	22.0	11.0
East South Central	16.1	13.0	5.5
West South Central	12.0	9.1	3.3
Mountain	32.3	15.4	6.8
Pacific	[1] 84.7	28.1	20.5
United States	[1] 38.4	28.8	17.1

[1] These amounts are somewhat too large on account of the inclusion by the Bureau of the Census of a considerable amount of commercial central station power as electric railway power in the States of Oregon and Washington in 1912.

Water power.—The total water-power installation in street and electric railway stations 1912 was 471,307 horsepower, or 12.8 per cent of the total primary power installation. The use of water power has, however, increased rapidly in recent years. The census reports show an increase of 87 per cent from 1902 to 1907 of 412 per cent from 1907 to 1912; and of 858 per cent from 1902 to 1912. Although the last two percentages are somewhat high on account of the inclusion of commercial central station power as above stated, they show, when compared with the corresponding percentages of total power increase—45 per cent, 85 per cent, and 170 per cent—percentages which are similarly affected, a far more rapid increase in the use of water power than in other sources of primary power for electric railway operation. This increase is most marked in the Mountain and Pacific groups of States, particularly the latter.

With the exception of Minnesota, three groups of States, the West North Central, the East South Central, and the West South Central, had no water power in electric railway stations in 1912. Two hundred and eighty-eight thousand eight hundred and eighty-five horsepower or over 61 per cent of the total water power reported to the census in 1912 was in six of the Western States included in the Pacific and Mountain groups; 26 of the 48 States reported no water power.

Steam power.—The installation of steam power in electric railway stations aggregated 3,169,554 horsepower in 1912, or 86.5 per cent of the total primary power in such stations. In steam installation New York leads with 634,490 horsepower or nearly twice as much as the next State, Ohio, which had 330,995 horsepower. In all sections except the Pacific States, steam furnishes by far the largest part of the power. Only in the Pacific group is water the chief source of primary power.

Gas power.—This plays an unimportant part in electric railway operation, being less than 1 per cent of the total primary power. Only 12 States in 1912 reported any gas power installation. The largest in any State was 4,660 horsepower in Pennsylvania.

COMMERCIAL AND MUNICIPAL CENTRAL STATIONS AND STREET AND ELECTRIC RAILWAYS.

The clearest understanding of the trend of electric-power development can be had from a consideration of the combined primary power installations of the commercial central stations, the municipal central stations and the street and electric railways. While a certain amount of electric power is developed by manufacturing establishments for use in such establishments, the three uses above named comprise what is generally considered as the electric power industry.

Total primary power.—The total of steam, water, and gas power used by central stations and electric railways in 1912 aggregated 11,193,699 horsepower, or 36.8 per cent of all the primary power used for all purposes in the United States. Of this amount 26.3 per cent was water power, 72.5 per cent steam power, and 1.2 per cent gas power. New York leads in total installation with 1,813,529 horsepower, followed by Pennsylvania with 908,879 horsepower and California with 881,559 horsepower. Five of the nine groups of States had over a million horsepower. The Middle Atlantic and east North Central States lead with 2,991,020 horsepower and 2,515,706 horsepower, respectively. The Pacific States are third with 1,378,725 horsepower.

In rate of increase in electric power development the Western States lead all others. The average rate of increase for the 11 States in the Mountain and Pacific groups for the 10 years 1902 to 1912 was 44 per cent per year, or 440 per cent for the 10-year period. The increase for the remainder of the United States during the same period was 226 per cent, or slightly more than one-half the rate of increase of the Western States. Electric power development in the 17 Eastern States comprised within New England, Middle Atlantic, and South Atlantic States during the same period was 215 per cent, or less than one-half the rate of increase for the Western States. The most significant fact to be deduced from the census statistics of the electric power industry is the remarkable power development of the Western States, particularly of the Pacific group, as evidenced in a rate of increase in the Western States nearly twice as great as for the remainder of the United States, and for the Pacific group of two and one-fifth times as great. This rate of increase of western power development is still more strikingly apparent when the intensity of development in proportion to population is considered.

The rates of increase for the several geographic divisions are given in the following table and diagram (Plate VII). Details for the several States are given in Table No. 17, Part II, and on plate 24, Part II.

TABLE NO. 17.—*Percentages of increase in primary power, commercial and municipal central stations, and street and electric railways, by geographic divisions.*

	1902–1912	1902–1907	1907–1912
New England	160	62	61
Middle Atlantic	205	97	55
East North Central	228	92	71
West North Central	244	114	61
South Atlantic	375	161	82
East South Central	261	124	62
West South Central	306	143	67
Mountain	340	122	98
Pacific	492	193	102
United States	246	106	66

Primary power per thousand of population.—In intensity of electric-power development per capita the commanding position of the Western States is even more apparent than when merely rate of increase is considered. The first six States in order of electric power per capita in 1912 are Western States—California, Montana, Washington, Utah, Colorado, and Oregon in the order named. California, with 342 horsepower per thousand of population, had more than 2.5 times the average for the United States. Only one State outside of the two western groups had a development in excess of 200 horsepower per thousand, and this was New Hampshire, with 203.2 horsepower. The Pacific group, with an average of 300.5 horsepower, has nearly twice as much as the highest group outside of the Western States—New England, with its average of 170.9 horsepower. The development in the 11 Western States included in the Pacific and Mountain group was 255.1 horsepower per thousand, or 2.5 times as much as in the remainder of the United States (105.5 horsepower) and nearly twice as much as in the three eastern groups (130.4 horsepower) of New England, Middle Atlantic, and South Atlantic States.

Amounts per thousand of population in the several geographic divisions appear in the following table and diagram (Plate VIII). Details for the several States are given in Table No. 19 and on plate 25, Part II.

TABLE NO. 18.—*Primary power per thousand of population, commercial and municipal central stations and street and electric railways, by geographic divisions, in horsepower.*

	1912	1907	1902
New England	170.9	114.4	77.0
Middle Atlantic	148.2	105.8	60.1
East North Central	134.1	83.7	46.5
West North Central	78.0	51.2	25.4
South Atlantic	79.7	47.2	19.5
East South Central	41.2	26.8	12.7
West South Central	37.1	25.3	12.1
Mountain	182.2	110.8	63.0
Pacific	300.5	184.9	83.4
United States	117.3	75.7	40.3

Water power.—The aggregate water-power installation in central stations and electric railways was 2,942,388 horsepower in 1912, or 26.3 per cent of the total primary power employed for such purposes. From 1902 to 1907 water-power installation increased 953,423 horsepower, or 195 per cent; from 1907 to 1912, 1,501,340 horsepower, or 104 per cent; and from 1902 to 1912, 2,454,763 horsepower, or 502 per cent. A comparison of these percentages with the corresponding increase in total primary power of 106 per cent, 66 per cent, and 246 per cent, shows a much more rapid development of water power than of other sources of power in the electrical industry.

In total water-power installation New York again leads with 530,921 horsepower, followed by California with 432,327 horsepower and Washington with 269,641 horsepower. Six other States, South Carolina, Michigan, Pennsylvania, Oregon, Montana, and Minnesota, had more than 100,000 horsepower. By geographic divisions the Pacific States lead with 807,270 horsepower, followed by the Middle Atlantic States with 665,508 horsepower. The ratio of water power to total power is the highest in the Mountain States, 65 per cent, and in the Pacific States, 58.5 per cent, both having more than twice the average percentage for the United States.

Steam power.—Steam power formed 72.5 per cent of the total primary power operated by central stations and electric railways in 1912, or 2.75 times the water-power installation. This preponderance of steam power is mainly found in the Eastern States where two groups, the Middle Atlantic and the East North Central States, have more than one-half of the total for the United States. In but two groups, the Mountain and the Pacific, is there less steam power than water power.

The total steam installations of the central stations and electric railways in the United States in 1912 was 8,116,086 horsepower, or one-third of the total steam power for all purposes estimated and reported for the year. Among the individual States, New York leads with 1,273,422 horsepower, more than one-sixth of the total in the United States and over a half million horsepower in excess of its nearest competitor, Pennsylvania.

Gas power.—Gas power forms 1.2 per cent of the total primary power in central stations and electric railways, the installation in 1912 being only 135,225 horsepower for the United States. Nearly one-half the total is found in the five States of Kansas, Ohio, Oklahoma, Pennsylvania, and Texas.

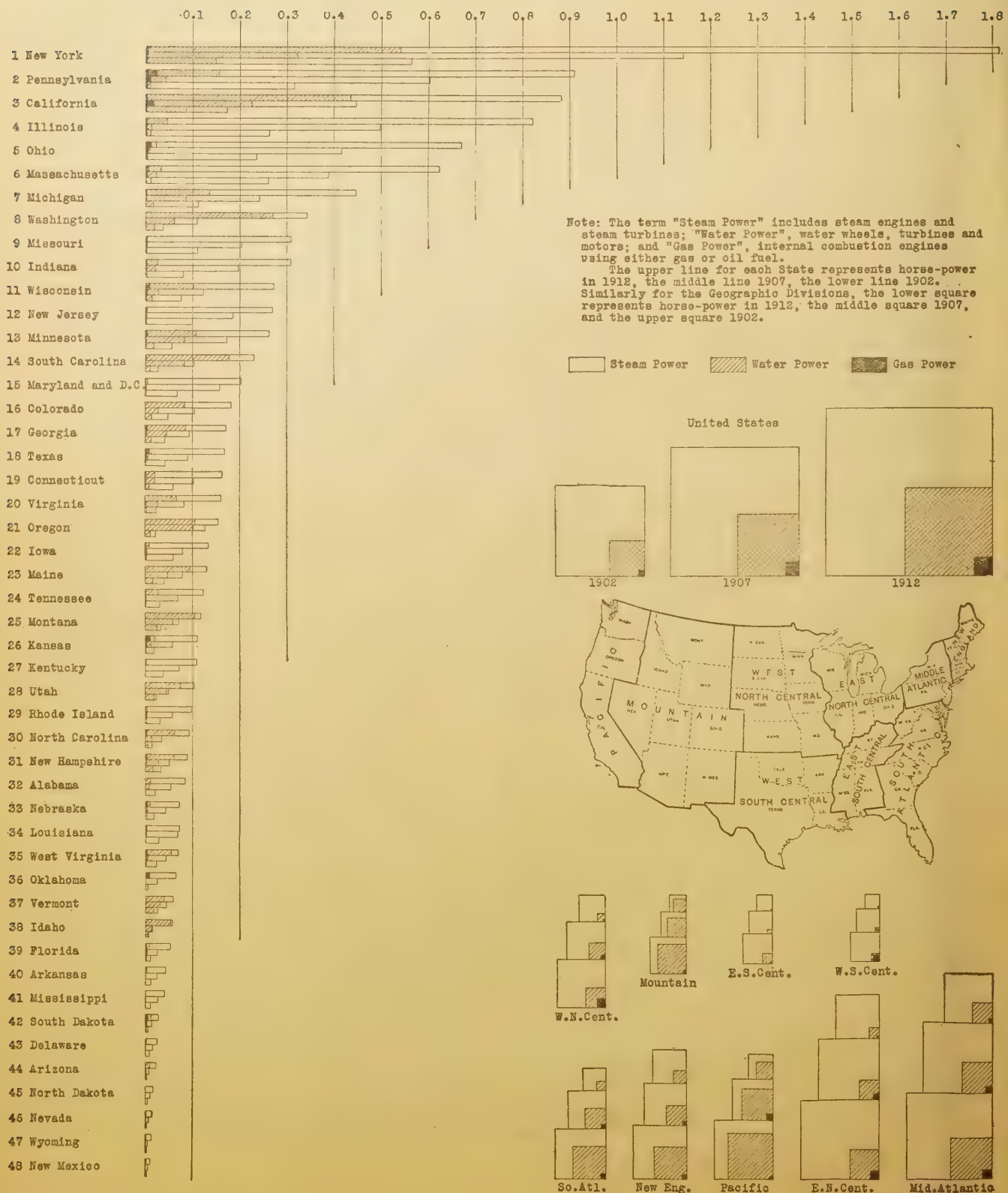
MANUFACTURES.

The Bureau of the Census collected statistics for power used in manufactures by 10-year intervals from 1869 to 1899 and by 5-year intervals since the latter date. As the data for central stations and electric railways and for manufactures are not collected in the same years, they are not directly comparable. For the purposes of this report, however, the power used in manufactures has been estimated for the years 1902, 1907, and 1912 from the census reports of 1899, 1904, and 1909 by assuming a uniform rate of increase from 1899 to 1904 and from 1904 through 1909 to 1912. While figures thus obtained can be considered only approximate, the short intervals between the reports should make the estimates reasonably accurate and should afford a fair basis of comparison with the power used in the electrical industry.

Primary power in manufactures, as the term is used in this report, comprises only "prime movers"—steam engines and turbines, water wheels and turbines, and gas engines—owned by the manufacturing establishments and used therein. The Bureau of the Census

CENTRAL STATIONS AND STREET AND ELECTRIC RAILWAYS PLATE VII

Primary Power in 1912, 1907 and 1902: - Steam Power, Water Power, and Gas Power
By States and by Geographic Divisions
In Millions of Horse-Power



Note: The term "Steam Power" includes steam engines and steam turbines; "Water Power", water wheels, turbines and motors; and "Gas Power", internal combustion engines using either gas or oil fuel.

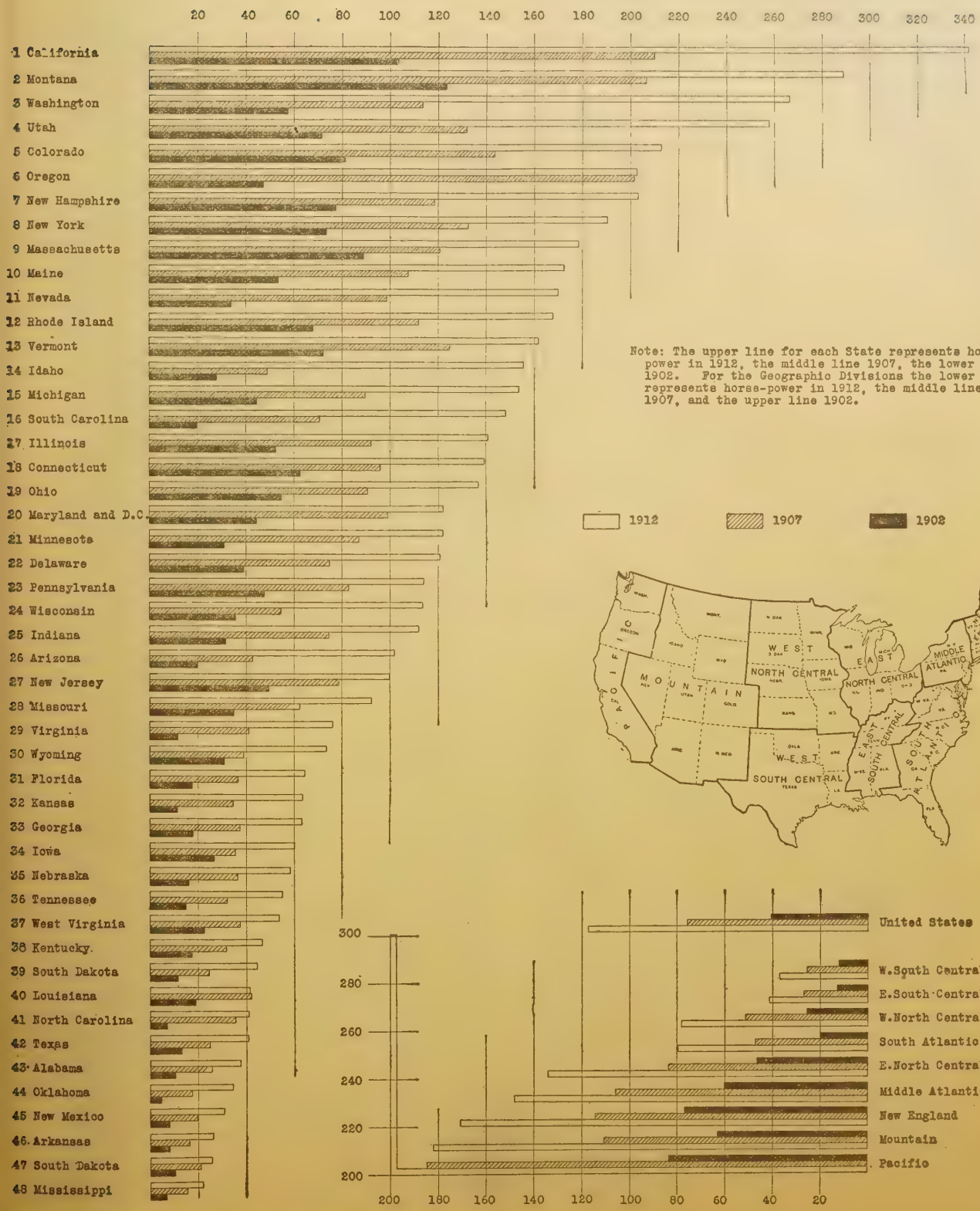
The upper line for each State represents horse-power in 1912, the middle line 1907, the lower line 1902. Similarly for the Geographic Divisions, the lower square represents horse-power in 1912, the middle square 1907, and the upper square 1902.

Steam Power Water Power Gas Power

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

COMMERCIAL AND MUNICIPAL CENTRAL STATIONS AND STREET AND ELECTRIC RAILWAYS PLATE XXIX

Primary Power Per Thousand of Population in 1912, 1907 and 1902
By States and by Geographic Divisions
In Horse-Power



To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

for the purposes of its report adds also "the power of electric motors run by purchased current and any other power that may be purchased or rented from outside concerns." [1]

Manifestly, if the primary power in manufactures as defined by the Bureau of the Census should be added to primary power in central stations and electrical railways, the sum would be greater than the total primary power in the United States, for there would be duplication to the extent of the capacity of electric motors operated by the purchased power, plus any other power purchased or rented. Since this report deals with total power development, the data for prime movers only have been used.

While a considerable although unknown amount of electric power is developed in manufacturing establishments for use therein, by far the greater part of the primary power of such establishments is used directly without conversion into electricity. The census reports do not show the amount of primary power employed in the generation of electricity in manufacturing plants. It probably would be difficult if not impossible to segregate the power used to drive generators from the power used for other purposes in such establishments. The installed capacity of electric motors driven by "owned power" in manufacturing establishments was reported to the census as 3,000,000 horsepower in 1899. What relation primary power bears to motor installation is wholly indeterminate. It is probably, however, much less than the rated motor installation. While primary power in manufacturing plants is not important in a consideration of the electrical industry, data concerning it are of interest as showing the volume of power utilized in manufactures and the grand total of power development for all uses.

Total primary power.—Estimated as explained above, the aggregate primary power employed directly in manufactures was 19,254,547 horsepower in 1912, or 63.2 per cent of the total primary power used for all purposes in the United States. Of this amount 10 per cent was water power, 84.4 per cent steam power, and 5.6 per cent gas power. In total estimated power developed in manufacturing plants Pennsylvania, with 3,081,463 horsepower, is far ahead of any other State. But four other States—Ohio, New York, Massachusetts, and Illinois, in the order named—had more than 1,000,000 horsepower each. These five States had nearly one-half (45.4 per cent) of the total within the United States. The Middle Atlantic group of States leads in installation, followed by the East North Central and the New England States. These three groups had in 1912 an estimated combined installation of 12,800,000 horsepower, or two-thirds of the total in the United States. Although the total amount of primary power in manufacturing establishments in the Western States was a little less than 1,200,000 horsepower in 1912, or 6.1 per cent of the total for the United States, these States have shown the most rapid rate of increase of any section of the country, advancing 67 per cent from 1902 to 1907, 41 per cent from 1907 to 1912, and 121 per cent from 1902 to 1912, or nearly twice as rapidly as for the United States as a whole, for which the corresponding percentages were 30 per cent, 25 per cent, and 63 per cent, respectively.

[1] Thirteenth Census of the United States, 1910, vol. 8, Manufactures, General Report and Analysis, Bureau of the Census, 1913, p. 330.

Percentages of increase by geographic divisions appear in the following table. Detailed figures for the several States may be found in Table No. 15, and on plate 26, Part II.

TABLE No. 19.—*Percentage of increase in primary power in manufacturing plants, by geographic divisions.*

	1902 1912	1902 1907	1907-1912
New England	93	20	18
Middle Atlantic	48	25	18
East North Central	66	31	27
West North Central	72	32	30
South Atlantic	84	40	32
East South Central	76	38	28
West South Central	110	49	41
Mountain	113	58	36
Pacific	125	57	43
United States	63	30	25

Primary power per thousand of population.—In proportion to population the New England States lead in amount of primary power in manufacturing plants, followed in order by the Middle Atlantic, the East North Central, and the Pacific States. New Hampshire leads the individual States with 709.4 horsepower per thousand of population, followed by Maine with 651.3 horsepower, Vermont with 426 horsepower, and Rhode Island with 415 horsepower. The highest figure outside of New England is 386.7 horsepower for Pennsylvania. Among the Western States Oregon leads with 287.9 horsepower, followed by Washington with 259.8 horsepower per thousand of population.

Figures for the several geographic divisions are given in the following table. Details for the individual States may be found in Table No. 18 and on plate 27, Part II.

TABLE No. 20.—*Primary power per thousand of population in manufacturing plants, by geographic divisions, in horsepower.*

	1912	1907	1902
New England	406.9	370.1	335.5
Middle Atlantic	271.1	253.7	227.0
East North Central	214.9	205.2	167.9
West North Central	96.1	78.1	63.0
South Atlantic	154.3	125.9	97.5
East South Central	133.6	109.9	84.3
West South Central	109.6	88.8	69.3
Mountain	139.1	123.7	98.8
Pacific	170.2	147.9	124.2
United States	201.6	175.7	148.6

Water power.—The water power in manufactures in 1912 furnished only 10 per cent of the primary power, or a total of 1,927,932 horsepower. This was, however, nearly 40 per cent of the total developed water power in the United States.

Of the water power used in manufactures the New England and Middle Atlantic States have 65 per cent. New York leads with 365,308 horsepower, or nearly one-fifth of the total in the United States, followed by Maine, with 291,571 horsepower. The 11 Western States had only 105,017 water horsepower used directly in manufactures. This is due to the fact that power for manufacturing purposes in the West is largely purchased from commercial electric companies.

Detailed figures by States are given in Table No. 15 and on plate 8, Part II.

Steam power.—The steam power installation in manufacturing plants was estimated as 16,223,733 horsepower in 1912, or 84.4 per cent of the total power

developed in such plants. The rate of increase for steam power in manufactures is much greater than for water power. For all other uses, however, water power had increased more rapidly than steam power. In manufacturing plants such power as is developed by the manufacturer for his own use is developed at the site of the manufacturing plant, and the most extensive manufactures are in the great centers of population where water power is not available. A constantly increasing amount of power is being purchased and used in manufacturing operations, but the prime movers developing such power are classed with central stations and not with manufactures.

Of the individual States Pennsylvania is estimated to have had the largest steam installation in manufacturing plants in 1912, or 2,812,523 horsepower, 18 per cent of the total for the United States and nearly twice as much as the next highest State, Ohio. These two States, together with New York, had an estimated steam installation in 1912 of 5,593,843 horsepower, or more than a third of the total for the United States. The 11 Pacific and Mountain States combined had less steam installation in manufacturing plants than the lowest of the three States named above.

Detailed figures for the several States may be found in Table No. 15 and on plate 26, Part II.

Gas power.—Eighty-nine per cent of the gas power estimated and gas power formed but 5.6 per cent of the total power so used. The reported for 1912 was installed in manufacturing plants, although estimated total gas power in manufactures in 1912 was 1,102,882 horsepower. Pennsylvania leads with an estimated installation of 211,002 horsepower in 1912. This State, together with Indiana, Ohio, and New York, had 60 per cent of the estimated gas power developed in manufacturing plants in 1912.

Details for the several States may be found in Table No. 15 and on plate 15, Part II.

POWER DEVELOPMENTS IN 1915.

The reports of the Bureau of the Census bring the data on power development up to 1912. In order to determine the amount of development since that date, both in the aggregate and by individual plants, a census has been made of power installation in 1915 in commercial and municipal central stations and street and electric railways. Data have also been secured for some of the larger manufacturing plants, but no attempt has been made to have this data complete. In making this census all available information in such directories as McGraw's Electrical Directory, McGraw's Electric Railway Directory, Moody's Manual of Railroad and Corporation Securities, Poor's Manual of Public Utilities, reports of the public utility commissions of the several States, and engineering periodicals has been secured and tabulated, and then supplemented and corrected, for the Western States, by the field investigation of the district engineers of the Forest Service, and in the remainder of the United States by correspondence with the operating companies. While there are doubtless omissions in the data, it is believed that the information concerning public-utility plants in the Western States is substantially correct. The data for the remainder of the United States have not been verified by field examinations, but for approximately one-half of the stations listed have been verified or corrected by the officials of the power companies. How much error may exist in the data for the remainder of the stations is uncertain. All available sources of information, however, have been utilized in order to secure the greatest possible accuracy.

In addition to data on installation information has also been secured, when possible, concerning the markets supplied, the location of the plants, the stream utilized (if water power), and the rates charged for lighting and for power. Lists by States of the companies and plants for which information has been secured, giving in horsepower the installation of water wheels, boilers, steam engines and gas engines, and the kilovolt-ampere rating of generators may be found in detail in Table No. 55, Part II, and summarized in Tables Nos. 53 and 54, Part II.

Those States in which it has been possible to secure reasonably complete data show a considerable increase in development of all sources of power since the date (1912) of the statistics collected by the Bureau of the Census. The increase is most marked in the Western States, particularly in the Pacific group, where the rate of increase in development since 1912 has been still more rapid than in the five years from 1907 to 1912. These later data serve to give added emphasis to the conclusions drawn from the public statistics of the Bureau of the Census.

RELATION OF WATER-POWER DEVELOPMENT TO TOTAL POWER DEVELOPMENT.

Although water power in 1912 amounted to only 16 per cent of the total power from all sources, the rate of increase for the 10 years, 1902 to 1912, was 137 per cent as compared with 96 per cent for steam power, which is the source of 80 per cent of the total primary power. The large proportion of steam power is due to the fact that the States which have the largest population, the highest development of manufactures, and consequently the greatest amounts of developed power, are situated either in sections having no water power or in sections supplied with cheap fuel.

In seven of the nine geographic divisions—the Pacific and Mountain groups alone excepted—the total primary power installed in 1912 was in excess of the estimated minimum potential water-power resources of the section, and in five out of the seven in excess of the maximum resources without storage. It would not be safe to assume that in the existing state of the art it would be possible, by the development of all practicable storage and by ignoring questions of cost, to make practically available for use more water power than is represented by the maximum potential power estimates given in this report; nor if questions of cost are given proper weight, much in excess of the minimum estimates. Five great groups of States, the New England, the Middle Atlantic, the East North Central, the West North Central, and the West South Central, having in 1912 a population of 67,000,000, or 70 per cent of the total for the United States, had already installed a primary power equipment—water, steam, and gas—of 14½ million horsepower, or 171 per cent, in excess of their maximum water-power resources; and two other groups, the South Atlantic and East South Central, had exceeded their minimum resources. Out of the seven groups, 23 individual States had already installed in 1912 primary power equipment in excess of their maximum water-power resources, and 29 States in excess of their minimum resources. In these seven groups the aggregate primary power in 1912 was more than three and a half times (3.53) the minimum and

nearly twice (1.87) the maximum combined water-power resources of the groups. Under such circumstances it is idle to assume that water power can wholly supersede steam power over the greater part of the United States under any conditions now known, or, as power developments continue to increase in the future, can play more than a minor rôle as a primary source of power. While it would be rash to attempt to predict the future or to set limits to the distance to which it may be possible eventually to transmit electric power, yet until the time shall have come, if it ever comes, when the enormous power resources of the Western States can be developed and transmitted into the States of the Mississippi Valley and along the Atlantic coast, the greater part of the United States will be forced to rely for the larger part of its power on sources other than water power.

While 6 of the 23 States in which total primary power is in excess of maximum water-power resources had in 1912 developed their water power to a point in excess of their minimum estimated resources, and one State, Rhode Island, in excess of its maximum estimate, there is still a large amount of water power which under favorable conditions might be utilized. But not all water powers, even those which make up the estimate of minimum resources, can in centers of cheap fuel compete with steam power either in point of cost or in point of reliability. Furthermore, even though when developed, the unit cost of current in a water-power plant may be less than in a steam plant, the higher capital cost of the water-power plant serves as a deterrent to its development unless a considerable margin of saving can be assured. Economic considerations of cost, of risk, of reliability of service, and of distance from market determine whether water power or steam power shall be used if both are available.

Although steam was the primary source of 80 per cent of the power in the United States in 1912, in all but two groups of States, the New England and Middle Atlantic, the development of water power increased more rapidly from 1902 to 1912 than the development of steam power, the respective percentages being 137 per cent and 96 per cent. The higher rate of increase for water power is most marked in the Pacific, Mountain, and South Atlantic States, in the order named.

The relatively greater increase in water power is indicated by the percentages which water power bears to total power for the different census years. In 1902 water power furnished 13.7 per cent of the total power in the United States; in 1907, 14.5 per cent; and in 1912, 16 per cent. The highest percentages in 1912 are found in the Pacific States, 41.2; in the Mountain States, 39.3 per cent; and in the New England States, 27.1 per cent. Among classes of uses the highest proportion of water power in 1912, 33.6 per cent, is found in commercial central stations. Municipal central stations had less than one-fourth (23.5 per cent); street and electric railways one-eighth (12.8 per cent); and manufactures but one-tenth of their total primary power developed from water.

The relative position of the several States in respect to water-power development appears in Table No. 21 and on plates 9, 10, and 11, Part II. A small scale reproduction of plate 9 is given on the following page.

RELATIVE POSITION OF WESTERN STATES IN PRIMARY POWER DEVELOPMENT.

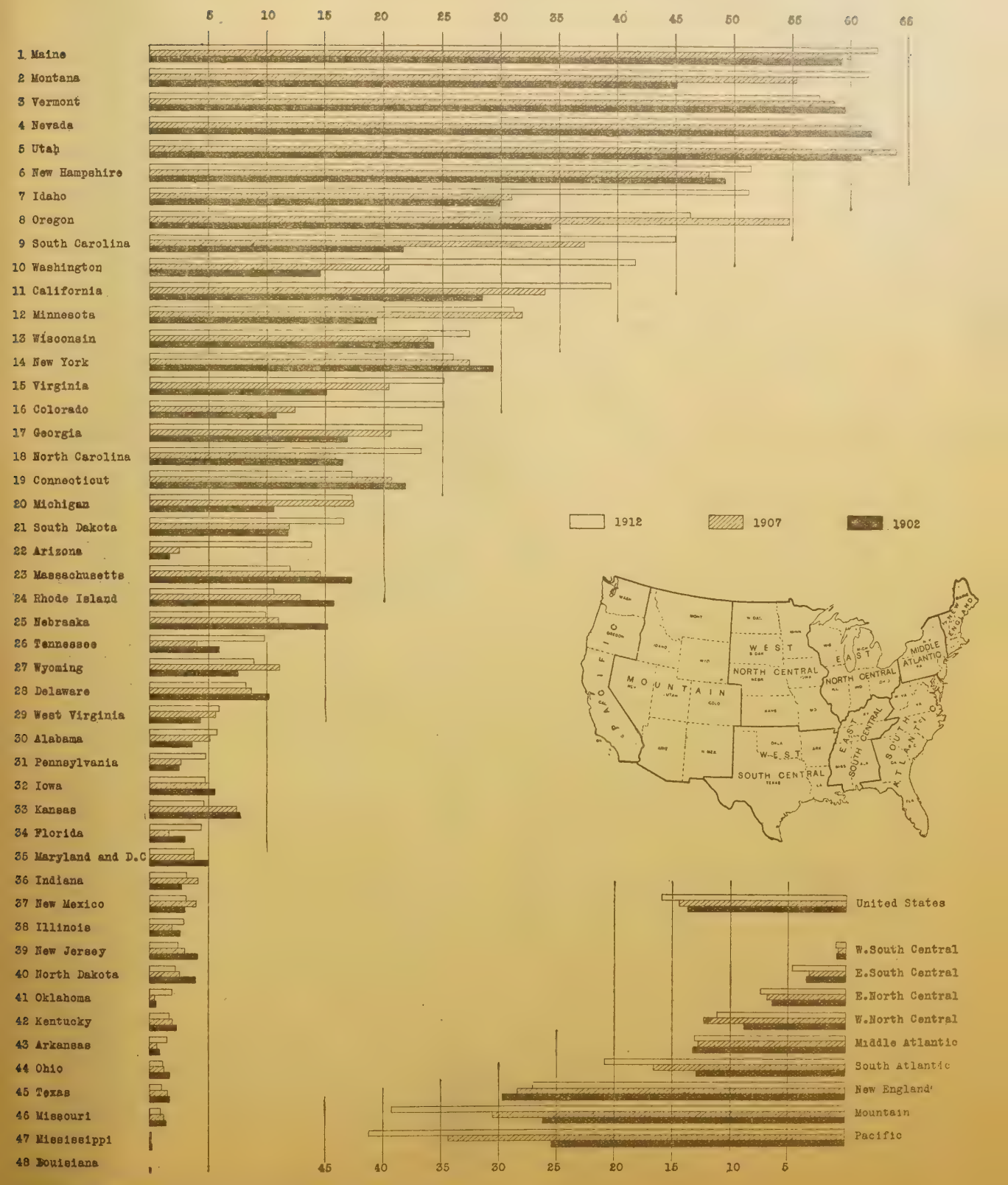
The 11 Western States included within the Pacific and Mountain groups have an area of 1,189,140 square miles, 39.3 per cent of the total area of the United States. These States in 1902 had a population of 4,668,000, or 5.9 per cent of the total for the United States. The same percentage represents the ratio of total primary power in the Western States to that of the United States as a whole, for the per capita development of the Western States and of the United States was identical in 1902, at 189 horsepower per thousand of population. From 1902 to 1912 the population of the Western States increased 59 per cent, or nearly four times (3.81) as fast as in the remainder of the United States, the increase in which was 15.5 per cent. Primary-power installation in the meantime increased 248 per cent in the Western States, or more than two and one-half times (2.64) as rapidly as in the remainder of the United States, for which the increase was 94 per cent. In primary-power equipment per thousand of population the Western States show an increase from 189.1 horsepower in 1902 to 413.4 in 1912; the remainder of the United States an increase from 190 horsepower to 310.7 horsepower. While the remainder of the United States in the 10 years from 1902 to 1912 added 120.7 horsepower per thousand to its primary-power installation, the Western States added 224.3 horsepower, or nearly twice as much, and had a total installation per thousand of population one-third greater than for the remainder of the United States.

The figures given above include primary power used directly in manufactures, 94 per cent of which is found in the Central and Eastern States. If comparison is made of the development of electric power in the Western States and in the remainder of the United States, it is found that while the primary power employed in the electrical industry increased 226 per cent in the remainder of the United States, it increased 440 per cent in the Western States, or nearly twice as rapidly. In the three eastern groups of States the increase was but 215 per cent, or less than one-half that of Western States. In electric-power development per thousand of population the Western States had 255.1 horsepower in 1912, or two and a half times as much as the remainder of the United States (105.5 horsepower). In installation per thousand of population in the electrical industry the Western States had 75.2 horsepower in 1902 and 255.1 horsepower in 1912; the remainder of the United States had 38.2 horsepower in 1902 and 105.5 horsepower in 1912. While the remainder of the United States in the 10-year period added 67.2 horsepower per thousand of population to its electric-power installation, the Western States added 179.9 horsepower, or nearly three times as much, and had a per capita installation at the end of the period nearly two and one-half (2.42) times as great as for the remainder of the United States.

If water power be considered apart from all other sources of power, the Western States are found to occupy a still more commanding position. While water-power development in the remainder of the United States increased 98 per cent from 1902 to 1912, it in-

RATIO OF WATER POWER TO TOTAL PRIMARY POWER IN 1912, 1907 AND 1902

By States and by Geographic Divisions
In Per Cent of Total Power



To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

creased 451 per cent in the Western States, or more than four and a half times as rapidly. In the three eastern groups of States the increase was 86 per cent, less than one-fifth as much as for the Western States. In installed water power per thousand of population the Western States had 48.5 horsepower in 1902 and 167.9 horsepower in 1912; the remainder of the United States had 24.5 horsepower in 1902 and 41.1 horsepower in 1912. While the remainder of the United States in the 10-year period added 16.6 horsepower to its water-power installation per thousand of population, the Western States added 119.4 horsepower, or over seven times (7.18) as much, and had at the end of the period a per capita installation of more than four times (4.08) as much as the remainder of the United States.

Whether power development in general, from all sources, in all forms, and for all uses, be considered, or that part of the Nation's developed power which is employed in the electrical industry, or only that part which is developed from falling water, the census data show that in rate of increase and in intensity of development per capita the Western States have led all other sections.

An examination of the data collected since the census of 1912 shows that the Western States are still maintaining their commanding position in power development. Primary power installation in the Western States in 1915 in the electrical industry, for which alone data have been collected, aggregates 2,784,000 horsepower, as compared with 1,897,000 horsepower in 1912, an increase of 887,000 horsepower, or nearly 47 per cent, in three years. This is an average increase of 296,000 horsepower per year as compared with 191,000 horsepower per year for the five years 1907 to 1912. Of the total increase, 74 per cent, or 661,000 horsepower, is water power, with an average annual increase of 220,000 horsepower as compared with 125,000 horsepower from 1907 to 1912. Twenty-six per cent of the total, or 226,000 horsepower, is steam power. This has increased at a rate of 75,000 horsepower per year as compared with 68,500 horsepower for the five years preceding 1912. As far as information is available the increase of gas-power installation in the Western States since 1912 for the purpose of electric generation of power has been only 249 horsepower.

While the use of electric power for all purposes except manufactures is greater in the Western States than in any other section of the country, as will appear from a later consideration of electric power output, and this greater use explains in large degree the extent of primary power installation, there is also at the present time a considerable overdevelopment in nearly all the power centers of the Western States. In California, for example, where the installation in commercial central stations was over a million horsepower, the sum of the peak loads of the individual plants in 1914 was only slightly over 700,000 horsepower. The sum of the simultaneous peaks on the several power systems probably did not exceed 600,000 horsepower. If so, there was in commercial central stations in California in 1914 an installation of 400,000 horsepower in excess of all demands. A certain amount of surplus installation is always needed to insure against accident and to anticipate increases in market demand, but 67 per cent is far more than is necessary for this purpose. An allowance of one-third, which should be all that is necessary, would still leave 200,000 horsepower unused or but partially used while awaiting increase in markets. In Oregon and Washington the Portland Railway, Light & Power Co., the Puget Sound Traction, Light & Power Co., and the Washington Water Power Co. have installations largely in excess of current needs. A similar situation exists in Montana, in Colorado, and in Utah. In Utah, since the consolidation of operating plants into the Utah Securities Corporation, the margin of installation over the demands of the consolidated market has resulted in the closing or only partial operation of several of the power plants in the system. While there are doubtless many remote sections where small amounts of power could be used if it could be supplied at a reasonable expense, the Western States in general are overdeveloped at the present time, and the real demand is for more markets rather than for more power.

Details of the development in the several States by classes and by uses may be found in Table No. 55, Part II, and are summarized in Table No. 53, Part II.

MAPS.

Maps showing the location of all power plants and the primary transmission lines, and the location and extent of the national forests in each of the following States, are given in Part II.

Arizona.	Nebraska.	South Dakota.
California.	New Mexico.	Utah.
Colorado.	Nevada.	Washington.
Idaho.	North Dakota.	Wyoming.
Montana.	Oregon.	

POWER DEVELOPMENT ON THE NATIONAL FORESTS AND OTHER PUBLIC LAND OF THE UNITED STATES.

The greater part of the vacant public lands of the United States and 97 per cent of that portion reserved for national forests are within the 11 States comprising the Mountain and Pacific groups. Forty-two per cent of the total estimated minimum and 43 per cent of the total estimated maximum water-power resources of these two groups of States are within the national forests. A large percentage of the estimated water-power resources outside of the national forests in these two groups of States pertains to navigable rivers, particularly to the Columbia and to its two chief tributaries, the Clarks Fork and the Snake. While these streams possess enormous power possibilities, the great cost of construction and the difficulties of operation due to the reduction in head which would obtain during times of annual high water would limit the number of sites which could be developed under present conditions. The national forests, therefore, have a much larger proportion of their power resources which could be economically developed under existing conditions than would appear from the preceding percentages. On this account a continually increasing proportion of new power developments utilize sites within the national forests or other public lands of the United States.

Of the 1,804,360 water horsepower developed in the Western States in 1915, 536,782 horsepower, or 29.8 per cent, is in plants occupying national forest lands with some part—power house, water conduit, or diversion reservoir—of the immediate generating plant.

No plants have been included if nothing more than the transmission line is on the national forest. In addition to the above, hydroelectric plants with a capacity of 218,030 horsepower, or 12.1 per cent, are directly dependent upon storage reservoirs owned by the operating companies or their subsidiaries and constructed on national forest lands. The total of power developments thus utilizing national forest lands amounts to 754,812 horsepower, or 41.9 per cent of the total developed power of the Western States. In addition to this, 172,760 horsepower occupy public lands outside the national forests and 72,000 horsepower are directly dependent upon storage reservoirs occupying such lands, making a total of 244,760 horsepower, or 13.6 per cent of the total developed water horsepower of the Western States. Of the total developed power, therefore, 999,572 horsepower, or 55.5 per cent, is developed in plants which either occupy or are directly dependent upon the use of public lands of the United States, as such occupancy and use is authorized under existing law.

In addition to the operating plants there are now under construction on the national forests hydroelectric plants with an estimated capacity at minimum stream discharge of 122,680 horsepower and a probable primary power installation of not less than 250,000 horsepower. Outstanding final permits authorizing the occupancy and use of national forest lands for hydroelectric plants, the construction of which has not yet started, aggregate 420,765 horsepower of estimated capacity at minimum stream flow. The total primary power installation in these plants, if constructed, would probably exceed 850,000 horsepower. Preliminary permits, maintaining the priority of the applicant while surveys and investigation are being conducted, aggregate 353,750 horsepower of estimated capacity at minimum stream flow and a probable primary power installation, if constructed, of not less than 700,000 horsepower.

Notwithstanding the somewhat unsatisfactory form of the present law, more than one-half of the existing water-power developments of the Western States are making use to some degree of the public lands of the United States under authority from the Federal Government; an estimated amount of 250,000 horsepower more, equal to one-seventh of the total existing developments, is now under construction upon the national forests, and 1,550,000 horsepower, nearly equal to the existing development, is under permit for future construction.

ELECTRIC POWER GENERATED.

The reports of the Bureau of the Census give the quantities in kilowatt hours of the electric power generated in commercial and municipal central stations and by street and electric railway companies. In order that the figures for output might be compared with those for primary power, they have been reduced to horsepower-years by dividing by 6,535 the number of kilowatt hours in a horsepower-year. No data are given for electric power generated in manufacturing plants and used therein for motor operation. In order, however, to determine the approximate amount of power so used, estimates of the electric power output of manufacturing plants have been made upon the assumption that motor capacities and generator capacities are equal, that the same ratio between power output and generator capacities obtains in manufacturing plants as in central stations and electric railways, and that motor capacities in manufacturing plants increased uniformly from 1899 to 1904 and from 1904 through 1909 to 1912. It is clear that these estimates can be nothing better than rough approximations, and that their use is justified only on account of the complete absence of actual data.

In reporting amounts of power generated the Bureau of the Census does not distinguish between the power generated by steam, water, and gas. While in the larger power systems separate records are ordinarily kept for power generated by water and power generated by steam, it would doubtless be difficult to secure accurate data for all plants, and it apparently has not been attempted by the Bureau of the Census.

TOTAL ELECTRIC POWER GENERATED.

The total amount of electric power generated in commercial and municipal central stations, by street and electric railways, and in manufacturing plants as estimated and reported for 1912 was 3,774,622 horsepower-years. Of this amount 44.6 per cent was generated in commercial central stations, 2.2 per cent in municipal central stations, 24.6 per cent in electric railway stations, and 28.6 per cent in manufacturing plants.

The percentage increases in the power generated by the several classes of stations are as follows:

	1902–1912	1902–1907	1907–1912
	Per cent.	*Per cent.*	*Per cent.*
Commercial central stations	375	141	97
Municipal central stations	175	48	86
Street electric railways	168	111	27
Manufacturing plants	[1] 418	[1] 194	[1] 76
Total power generated	302	138	68

[1] Estimated only. Totals also approximate.

By individual States, New York leads with 645,297 horsepower-years, followed by Pennsylvania with 519,863 horsepower-years, and Illinois with 347,884 horsepower-years. These three States had 40 per cent of the electric power generated in 1912. California was fourth with 281,852 horsepower-years. By geographic divisions, the Middle Atlantic States lead, followed by the East North Central and the Pacific States.

In rate of increase by periods the Pacific States lead, followed by the Mountain States. The use of electric power in these two groups combined increased 690 per cent from 1902 to 1912, as compared with an increase of 270 per cent for the remainder of the United States, and 240 per cent for the three Atlantic coast groups.

The percentages of increase for the several geographic divisions by census periods are given in the following table. Details for the several States may be found in Table No. 22 and on plate 32, Part II.

TABLE NO. 21.—*Percentage increase in electric power generated, all stations, by geographic divisions.*

	1902–1912	1902–1907	1907–1912
New England	256	119	63
Middle Atlantic	226	112	55
East North Central	342	158	71
West North Central	250	122	58
South Atlantic	317	151	66
East South Central	318	150	68
West South Central	280	124	73
Mountain	466	164	114
Pacific	846	338	114
United States	302	138	69

TOTAL ELECTRIC POWER GENERATED PER THOUSAND OF POPULATION.

The average amount of electric power generated in the United States in 1912 in central stations, electric railway stations, and manufacturing plants was 39.52 horsepower-years per thousand of population—an increase from 25.62 horsepower-years in 1907 and 11.84 horsepower-years in 1902. In horsepower-years per thousand of population the Pacific States lead with 87.95 horsepower-years, followed in order by the Middle Atlantic States, the Mountain States, and the New England States. By individual States, Montana leads with 143.97 horsepower-years per thousand, or more than three and a half times the average for the United States. Nevada is second with 111.66 horsepower years, and California third with 109.36 horsepower-years.

The total electric power generated per thousand of population in 1912, 1907, and 1902 was distributed among the several classes of stations as follows:

	1912	1907	1902
	Hp. yr.	*Hp. yr.*	*Hp. yr.*
Commercial central stations	17.65	9.76	4.46
Municipal central stations	.86	.51	.38
Electric railway stations	9.71	8.34	4.37
Manufacturing plants	11.29	7.00	2.63
Total power generated	39.52	[1] 25.62	11.84

[1] Total does not check in last place on account of fraction in subtotals.

The total electric power generated per thousand of population for the several geographic divisions for the years 1912, 1907, and 1902 is given in the following table. Details for the several States may be found in Table No. 26 and on plate 33, Part II.

TABLE NO. 22.—*Electric power generated per thousand of population, all stations, by geographic divisions, in horsepower-years.*

	1912	1907	1902
New England	55.52	36.77	18.21
Middle Atlantic	63.28	45.07	24.00
East North Central	49.73	31.01	12.83
West North Central	19.61	13.18	6.29
South Atlantic	16.38	10.60	4.58
East South Central	11.23	7.05	2.99
West South Central	8.57	7.56	2.99
Mountain	59.30	33.36	15.89
Pacific	87.95	50.66	15.27
United States	39.52	25.62	11.84

COMMERCIAL CENTRAL STATIONS.

TOTAL ELECTRIC POWER GENERATED.

Electric power generated by commercial central stations in 1912 was 1,685,600 horsepower-years, or 44.6 per cent of the total for all stations. By individual States New York leads with 331,138 horsepower-years, followed by California with 266,515 horsepower-years, Illinois with 160,506 horsepower-years, and Pennsylvania with 149,848 horsepower-years. No other State generated more than 100,000 horsepower-years. By geographic divisions the Middle Atlantic States lead, followed by the East North Central and the Pacific States.

In rate of increase from 1902 to 1912 the Pacific States lead with 884 per cent, followed by the South Atlantic States with 634 per cent. The Pacific and Mountain groups combined increased 706 per cent for the 10 years, or 2.2 times as rapidly as for the remainder of the United States and more than two and a half times as rapidly as for the three eastern groups of States. The percentages of increase by geographic divisions for the census periods are given in the following table:

TABLE NO. 23.—*Percentage of increase in electric power generated, commercial central stations, by geographical divisions.*

	1902–1912	1902–1907	1907–1912
New England	253	90	86
Middle Atlantic	251	98	78
East North Central	504	154	138
West North Central	366	146	90
South Atlantic	634	175	167
East South Central	211	55	101
West South Central	187	71	68
Mountain	478	151	122
Pacific	884	438	83
United States	376	141	97

ELECTRIC POWER GENERATED PER THOUSAND OF POPULATION.

The average of electric power generated in the United States in commercial central stations per thousand of population in 1912 was 17.65 horsepower-years, an increase from 9.76 horsepower-years in 1907 and 4.46 horsepower-years in 1902. On this basis Montana leads with 142.52 horsepower-years, followed by California with 103.41 horsepower-years. The former had more than eight times the average for the United States, the latter nearly six times as much. By geographic divisions the Pacific and Mountain States lead with 61.16 horsepower-years and 45.03 horsepower-years, respectively. These two groups combined had an average of 54.98 horsepower-years, or three and eight-tenths times the average for the remainder of the United States (14.49 horsepower-years), and two and eight-tenths times the average for the Eastern States (19.35 horsepower-years).

Amounts for the several groups of States appear in the following table. Details for the several States may be found in Table No. 25 and on plate 35, Part II.

TABLE NO. 24.—*Electric power generated per thousand of population, commercial central stations, by geographic divisions, in horsepower-years.*

	1912	1907	1902
New England	19.03	11.00	6.29
Middle Atlantic	26.73	16.69	9.45
East North Central	18.63	8.36	3.52
West North Central	8.36	4.66	2.02
South Atlantic	7.68	3.09	1.22
East South Central	3.49	1.82	1.25
West South Central	3.48	2.37	1.61
Mountain	45.03	24.39	11.81
Pacific	61.16	41.57	10.22
United States	17.65	9.76	4.46

COMMERCIAL AND MUNICIPAL CENTRAL STATIONS AND STREET AND ELECTRIC RAILWAYS.

Total electric power generated.—The aggregate in commercial and municipal central stations and electric railway stations amounted to 2,695,882 horsepower-years in 1912, or 71.4 per cent of all electric power generated in the United States during the

year. The largest amount was generated in New York, 517,244 horsepower-years, followed by California with 269,615 horsepower-years. By geographic divisions the Middle Atlantic, East North Central, and Pacific States lead with 823,413 horsepower-years, 612,458 horsepower-years, and 382,937 horsepower-years, respectively. In rate of increase from 1902 to 1912, the Pacific and Mountain States lead with 850 per cent and 487 per cent, respectively, or 3.2 and 1.8 times the average rate of increase for the United States. Electric power generated in the two groups combined increased 710 per cent or more than three times as rapidly as in the remainder of the United States, and three and a half times as rapidly as in the Eastern States.

The rate of increase by geographic divisions are given in the following table. Details for the several States may be found in Table No. 24 and on plate 41, Part II.

TABLE NO. 25.—*Percentage of increase in electric power generated, commercial and municipal central stations and street and electric railways, by geographic divisions.*

	1902–1912	1902–1907	1907–1912
New England	178	82	53
Middle Atlantic	179	91	46
East North Central	249	124	71
West North Central	218	105	54
South Atlantic	318	151	67
East South Central	267	130	60
West South Central	221	107	65
Mountain	487	167	121
Pacific	850	338	117
United States	269	123	66

ELECTRIC POWER GENERATED PER THOUSAND OF POPULATION.

The average for the United States in 1912 of electric power generated in central stations and electric railways per thousand of population was 28.23 horsepower-years, an increase from 18.61 horsepower-years in 1907 and 9.21 horsepower-years in 1902. Among the individual States Montana is first with 143.97 horsepower-years per thousand, or more than five times the average for the United States. California is second with 104.61 horsepower-years, or 3.7 times the average for the United States. By geographic divisions the Pacific and Mountain States lead with 83.45 horsepower-years and 52.78 horsepower-years, respectively. The two groups combined had an average of 71.70 horsepower-years, or nearly three times the average for the remainder of the United States, 24.55 horsepower-years, and 2.3 times the average for the Eastern States, 31.03 horsepower-years.

Amounts for the several geographic divisions appear in the following table. Details for the several States may be found in Table No. 26 and on plate 42, Part II.

TABLE NO. 26.—*Electric power generated per thousand of population, commercial and municipal central stations and street and electric railways, by geographic divisions, in horsepower-years.*

	1912	1907	1902
New England	35.24	24.78	
Middle Atlantic	40.80	30.96	17.94
East North Central	32.64	20.40	9.58
West North Central	15.54	10.70	5.10
South Atlantic	7.18	5.11	2.74
East South Central	5.18	3.66	2.03
West South Central	6.30	4.38	2.54
Mountain	52.78	28.18	14.11
Pacific	83.45	47.76	21.11
United States	28.23	18.61	9.21

Detailed figures for municipal central stations may be found in Tables 23 and 25 and on plates 36 and 37; for street and electric railways in Tables 23 and 25 and on plates 39 and 40; and for manufacturing plants in Tables 24 and 25 and on plates 43 and 44, all in Part II of this report.

RELATIVE POSITION OF THE WESTERN STATES IN AMOUNT OF ELECTRIC POWER GENERATED.

In the use of electric power as indicated by the amounts generated in central and electric railway stations and as estimated for manufacturing plants, the leading position of the Western States is even more pronounced than is their development of primary power. While primary power installed in the electrical industry increased 440 per cent in the 10 years 1902 to 1912, the amount of power generated increased 690 per cent, more than two and a half times as fast as in the remainder of the United States, and nearly three times as fast as in the three eastern groups. The power generated per capita in the Western States in 1912 for all purposes, including estimated amount in manufacturing plants, was more than twice as great as in the remainder of the United States. If estimated amounts generated and used in manufacturing plants are eliminated, the Western States show a per capita use of electric power nearly three times as great as in the remainder of the United States. The power generated by public utility corporations—commercial central stations—in the Western States in 1912 was nearly four times as great, per capita, as for similar stations in the remainder of the United States. In electric power generated by all stations, including manufactures, in power generated by central stations and electric railways, and in power generated by commercial central stations, the respective rates of increase in the Western States for the 10 years 1902 to 1912 were 690 per cent, 710 per cent, and 706 per cent, as compared with 270 per cent, 320 per cent, and 225 per cent for the remainder of the United States and 240 per cent, 277 per cent, and 200 per cent for the Eastern States.

FINANCIAL STATISTICS OF CENTRAL STATIONS.

This report considers the financial statistics of commercial central stations and municipal central stations only as data therefor are given in the reports of the Bureau of the Census for 1902, 1907, and 1912.

Costs of construction, equipment, and real estate, stock and bond issues, and funded debt are considered both in the aggregate, per thousand of population, and per horsepower of primary power, together with the total and percentage increases by census periods. Income, expenses, and surplus are considered in the aggregate, per thousand of population, per horsepower of primary power, and per horsepower-year of power generated. For the year 1912, income and expenses have been separated into classes and considered both in the aggregate and per horsepower-year of power generated.

As stated earlier in the report, commercial central station statistics for Oregon and Washington, in particular, and probably in less degree for several other States, are incorrect on account of the classification

of certain central stations which also operated street railways as central stations in 1907 and as railway stations in 1912. In particular the plants of the Portland Railway Light & Power Co. in Oregon and of the Puget Sound Traction, Light & Power Co. in Washington appear to have been so classified. Much the larger part of their business is central-station service and should have been so classified in 1912. The error is particularly apparent in the consideration of financial statistics. On this account the cost of construction, capitalization, and funded debt for commercial central stations show an actual decrease from 1907 to 1912 in the State of Washington, when without doubt there has been a very considerable increase. Totals for the Pacific group are also affected in large degree, and, to a less extent, the totals for the United States.

COST OF CONSTRUCTION, EQUIPMENT, AND REAL ESTATE.

The Bureau of the Census makes the following explanation concerning cost of construction, equipment, and real estate for the several census years:

> The schedule used at the census of 1902 called for a separate statement as to the cost, during the year and to date, of land; buildings; overhead electric-service construction; underground electric-service construction; lamps, motors, meters, and transformers, wired for use; supplies of every description on hand; and miscellaneous equipment. The object of these inquiries was to ascertain the total cost of the plant and equipment, and the expenditures during the year for extensions, additions, and repairs. It was presumed that the electric companies kept an account of this kind, but a majority contended that it was impossible to report the cost in such detail, and many asserted that they had no data from which even the total cost of the plant and equipment to date could be estimated with a fair degree of accuracy. Moreover, a considerable number of the electric stations have changed ownership during recent years, and the purchase price often has little relation to the actual cost of the plant, and in fact seldom, if ever, represents this cost. The transfer is frequently made through the exchange of stock or by some other arrangement whereby it is impossible to ascertain the money equivalent. In view of these conditions, the attempt to ascertain the cost of construction in such detail was abandoned in 1907, but in an effort to preserve the comparative value of the statistics the total cost of the plant and equipment to date and the cost of construction during the census year were requested. Even this modification of the inquiry was unsatisfactory, and in 1912 it was still further simplified, and only the total cost of construction, equipment, and real estate was called for.
>
> Many and varying factors enter into the cost of plants and equipment. Sites and rights, which in one instance may cost but little, in another may be very expensive. The equipment of a station designed and prepared to supply current to a large city or thickly settled community is quite unlike that of a station transmitting electricity considerable distances and selling in bulk to but few customers.[1]

It is not probable that the amounts reported, at least by commercial central station companies, to the Bureau of the Census under the designations of "cost of construction, equipment, and real estate" represent actual cost in the sense of cash expenditures or their equivalent. Costs in this sense have rarely been kept except in recent years in a few of the States under the pressure of public-utility legislation requiring uniform systems of accounting. The public-utility commissions in the valuation of properties which have been in operation for any considerable period have found it practically impossible to secure accurate data of actual cost. In the second place, it appears to be the general practice of public-utility corporations to consider as "cost of construction, equipment, and real estate" the amount which will make assets equal to liabilities on their balance sheets. Regardless of actual expenditures this amount will vary from year to year according to the variations in the other items of the balance sheet, and particularly according to the variation in outstanding stocks and bonds. In the majority of cases it would be more nearly correct to consider this item as "assumed present value of properties," rather than "investment in or cost of such properties." If from the total of outstanding common and preferred stock, funded and floating debt, cash investment and real estate mortgages of commercial central stations be deducted the duplications due to intercompany holdings and to securities held in treasury, the remainder, $2,086,251,437, differs by only one-half of 1 per cent from the reported "cost." Apparently "cost," in general, means scarcely more than the net total of outstanding securities and investments.

[1] Central Electric Light and Power Stations, 1912, pp. 64, 65.

COMMERCIAL CENTRAL STATIONS.

Total cost.—The total reported "cost" of commercial central stations in the United States up to 1912 was $2,098,613,122, equivalent to $21.97 per capita, and $301 per horsepower of primary power installation. The increase from 1902 to 1912 amounted to $1,615,893,243, or 335 per cent. By individual States, New York leads with a reported cost of $348,696,341, followed by California with $342,534,781. By geographic divisions the Middle Atlantic States are first, with a total of $580,011,561, and the Pacific States second, with $382,081,617.

Increase in total cost.—In amount of increase for the 10 years 1902 to 1912, California leads all other States with $306,402,785, or an average annual increase of over $30,000,000. Of this increase $231,663,204 was in the five years 1907 to 1912, or more than $43,000,000 a year. Only five other States increased as much for the entire period as California for each year of the period.

Fourteen States show a rate of increase for the 10 years in excess of 1,000 per cent. Two of these, Nevada and Idaho, show an increase of over 4,000 per cent. By geographic divisions the east South Central States are first, followed by the Pacific States and the Western States. These last two groups had an average increase of 761 per cent, or nearly three times (2.87) the average rate 265 per cent of increase for the remainder of the United States, and more than three and a half times (3.71) the average for the Eastern States.

Rates of increase in cost of construction of commercial central stations for the census periods are given in the following table. Details for the several States are given in Tables Nos. 27 and 28 and on plates 45, 46, and 47, Part II.

TABLE NO. 27.—*Percentage increase in reported cost of construction, etc., commercial central stations, by geographic divisions.*

	1902–1912	1902–1907	1907–1912
New England	175	64	68
Middle Atlantic	178	86	49
East North Central	364	143	91
West North Central	336	120	98
South Atlantic	610	204	134
East South Central	778	205	187
West South Central	468	140	136
Mountain	756	141	255
Pacific	764	225	166
United States	335	118	99

Cost per capita.—In investment or cost per capita up to 1912 the Pacific States lead, with $83.26, followed by the Mountain States with $70.92. The average for the two groups is $78.53 per capita, four and one-half times the average of $17.19 for the remainder of the

United States and nearly four times the average of $21.63 for the Eastern States.

The reported cost per capita for the several geographic divisions are given in the following table. Details for the several States appear in Table No. 28 and on plate 48, Part II.

TABLE No. 28.—*Reported cost of construction per capita, etc., commercial central stations, by geographic divisions.*

	1912	1907	1902
New England	$21.86	$14.05	$9.28
Middle Atlantic	28.74	21.31	12.84
East North Central	19.03	10.61	4.08
West North Central	13.38	7.14	3.45
South Atlantic	10.10	4.65	1.66
East South Central	8.23	3.02	1.01
West South Central	7.75	3.74	1.81
Mountain	70.72	24.06	12.57
Pacific	83.26	38.96	15.85
United States	21.97	12.05	6.08

Cost per horsepower.—The reported cost per horsepower for the United States was $286 in 1902, falling to $279 in 1907 and rising to $301 in 1912. The highest horsepower costs appear in the Mountain and Pacific States, the former with $485 and the latter with $416. The lowest are in New England, with $215. The magnitude of these figures is further evidence that they represent something more than actual "cost." Since they include both water power and steam power installation, it would be doubtful even in absence of other evidence if the real investment approaches such amounts.

Details of reported cost per horsepower for the several States and geographic divisions appear in Table No. 28 and on plate 49, Part II. Averages for the several geographic divisions are given in the following table:

TABLE No. 29.—*Reported cost of construction, etc., per horsepower, commercial central stations, by geographic divisions.*

	1912	1907	1902
New England	$215	$228	$228
Middle Atlantic	293	356	338
East North Central	237	261	240
West North Central	309	246	288
South Atlantic	229	210	223
East South Central	393	278	174
West South Central	357	255	225
Mountain	485	257	225
Pacific	416	253	250
United States	301	279	286

MUNICIPAL CENTRAL STATIONS.

Total cost.—The total reported cost of municipal central stations up to 1912 was $77,065,144, or 3.5 per cent of the amount reported for commercial stations, equivalent to $0.81 per capita and to $138 per horsepower of primary power installation. The increase from 1902 to 1912 amounted to $55,044,671, or 250 per cent, as compared with 335 per cent for commercial stations. By individual States, Illinois leads with a reported cost of $14,321,406. Washington, although having 13 per cent greater installation than Illinois, is second in total cost, with $6,194,001. By geographic divisions the East North Central States lead, with $31,473,659, or 41 per cent of the total for the United States.

Increase in total cost.—The Mountain States show the greatest rate of increase in total cost, or 1,840 per cent, from 1902 to 1912. The Pacific States are second, with 762 per cent. These two groups combined show an average increase of 827 per cent, or nearly four times (3.72) the average rate of increase for the remainder of the United States.

Rates of increase by census periods for the several geographic divisions are given in the following table. Details of costs for the several States may be found in Table No. 29 and on plate 50, Part II.

TABLE No. 30.—*Percentage increase in reported cost of construction, etc., municipal central stations, by geographic divisions.*

	1902-1912	1902-1907	1907-1912
New England	208	142	27
Middle Atlantic	90	62	17
East North Central	196	60	84
West North Central	232	82	82
South Atlantic	357	161	75
East South Central	312	171	52
West South Central	620	167	170
Mountain	1,842	793	118
Pacific	763	220	169
United States	250	95	80

Cost per capita.—In amount expended per capita up to 1912 the Pacific States lead with $1.88, followed by the East North Central States with $1.68. The average for the United States is $0.81 per capita. By individual States, Washington leads with $4.83 per capita, six times the average for the United States, followed by Illinois with $2.46 and Michigan with $2.24 per capita.

Reported costs per capita for the several geographic divisions are given in the following table. Details for the several States may be found in Table No. 29 and on plate 51, Part II.

TABLE No. 31.—*Reported costs of construction, etc., per capita, municipal central stations, by geographic divisions.*

	1912	1907	1902
New England	$0.82	$0.69	$0.31
Middle Atlantic	.20	.19	.13
East North Central	1.68	.97	.65
West North Central	.90	.52	.30
South Atlantic	.57	.35	.14
East South Central	.49	.34	.13
West South Central	.44	.18	.08
Mountain	.43	.24	.03
Pacific	1.88	.87	.36
United States	.81	.49	.28

Cost per horsepower.—The reported costs per horsepower of primary power installation in municipal central stations for the years 1912, 1907, and 1902 are $138, $133, and $138, showing but slight variation during the 10 years. These costs are strikingly different from those reported for commercial stations, which were $301, $279, and $286, respectively, or more than twice as great as for municipal stations. While municipal accounts may often omit items of expense which should properly be chargeable, and while for this reason costs per horsepower may be too low, the figures for municipal stations probably more nearly represent actual costs than the figures given for commercial stations.

COMMERCIAL AND MUNICIPAL CENTRAL STATIONS.

Total costs, increase in costs by periods, and costs per capita and per horsepower of primary power for commercial and municipal stations combined are not

far different from those for commercial central stations alone, on account of the small percentage which municipal stations figures are of the totals. The combined data, however, are given in Tables Nos. 30 and 31 and on plates 53, 54, 55, 56, and 57, Part II.

CAPITALIZATION AS REPRESENTED BY PAR VALUE OF STOCKS AND BONDS OUTSTANDING.

Stocks and bonds outstanding as reported to the Bureau of the Census appear to include not only securities in the hands of the public but also certain amounts held in the treasuries of the issuing companies. There is also a further duplication on account of the intercompany holdings of stocks and bonds of certain companies by other electric companies and which were reported both by the issuing company and by the holding company. The total duplication from these two sources amounted to $126,305,618 in 1912, or about 6 per cent of the total reported. The figures as given in the tables in the report are the total issues as reported to the census and have not been corrected for duplication. The uncorrected figures, however, represent very closely the net capital employed, for as an offset to the deductions for duplications $160,062,358 should be added for cash investments, real estate mortgages, and floating debt. With these added, the total of stocks and bonds outstanding for the United States as a whole differs from the total net capital by about 1½ per cent. If in addition deduction be made for investments not pertaining strictly to the electric industry, amounting in 1912 to $76,721,716, there is left $2,009,529,721 as the net capital engaged strictly in the electric industry. The total of stocks and bond issues as used in the report are therefore about 1½ per cent less than the aggregate net capital of all electric companies and about 2 per cent in excess of that part of the net capital employed strictly in the electric-power business.

The relation between capitalization as represented by the par value of stocks and bonds outstanding and the reported cost of construction varies largely for the three census years. In 1902 capitalization was 30 per cent in excess of reported cost and in 1907, 27.3 per cent in excess. In 1912 it was 2.2 per cent less. This changed relation from 1907 to 1912 may be due to more conservative practice in issuing securities or, in view of the considerable increase ($22) in the reported cost per horsepower, to inflation in reported costs of construction, or to both.

The ratios of the par value of stocks and bonds outstanding to the reported cost of construction for the three census years, by geographic divisions, are given in the following table:

TABLE No. 32.—*Ratio of par value of stocks and bonds outstanding to reported cost of construction, commercial central stations, by geographic divisions, in per cent.*

	1912	1907	1902
New England	77	115	85
Middle Atlantic	94	115	157
East North Central	95	125	103
West North Central	105	156	102
South Atlantic	103	164	103
East South Central	97	110	112
West South Central	90	92	105
Mountain	102	121	150
Pacific	108	154	138
United States	98	127	130

In total of outstanding stocks and bonds in 1912, California leads with $373,250,663, over 12 per cent in excess of the next State, New York, which had $309,471,635. By geographic division, the Middle Atlantic States lead, with $546,105,161, followed by the Pacific States, with $413,985,341. In amount of increase from 1902 to 1912 California again leads, with $322,192,618, or two and seven-tenths times as much as New York, which is the next State in order of increase. By geographic divisions, the Pacific States lead, with an increase of $352,736,996, or nearly $100,000,000 in excess of the next group, the East North Central States. The Pacific group would show a still larger increase had not certain central station companies, as previously explained, been classified by the Bureau of the Census as electric railway companies.

Stock and bond issues increased 114 per cent from 1902 to 1907, 53 per cent from 1907 to 1912, and 227 per cent from 1902 to 1912, as compared with corresponding increases of 118 per cent, 99 per cent, and 335 per cent in cost of construction. The highest rates of increase from 1902 to 1912 are found in the East South Central States, 661 per cent, and in the South Atlantic States, 613 per cent. The highest rate of increase for any individual State is found in North Dakota, 8,067 per cent. This, however, is due to the fact that North Dakota had practically no electric power developed in 1902, its stock and bond issues aggregating only $91,000 in that year.

Stock and bond issues in the United States in 1912 amounted to $21.49 per capita, as compared with $21.97 per capita for cost of construction. Of the individual States, Montana led, with $163.58 per capita, followed by California, with $144.82 per capita. Capitalization per horsepower of primary power is highest in Idaho, or $803, and lowest in Massachusetts, or $118. Capitalization per horsepower for the United States has steadily reduced since 1902, when it was $372, to $355 in 1907 and $295 in 1912.

No detailed data concerning dividends paid by commercial central station companies are presented by the Bureau of the Census. The report on central electric light and power stations for 1912, however, contains the following statement:

> In 1912 the 2,663 commercial companies reported dividends on common stock to the amount of $28,602,399, being equivalent to 2.9 per cent on $977,639,057 of common stock, as compared with 2.5 per cent in 1907 and 1.6 per cent in 1902. The amount of dividends on the preferred stock in 1912 was $5,978,473, equal to 3.4 per cent; in 1907 the rate was 3.2 per cent; and in 1902, 2.6 per cent. Some of the 2,663 companies reported for 1912 did not pay dividends for the census year, while others declared them upon one class of stock only.[1]

The percentages given above are for dividends paid, not dividends earned. The latter are much greater. It is a common practice, particularly when the business of the electric company is expanding rapidly, to divert surplus earnings into extensions to property instead of into dividends, permitting stockholders to have a larger equity in the property in lieu of annual dividend payments.

Details of stock and bond issues for the several States, and amounts per capita, and per horsepower, may be found in Tables Nos. 32 and 33, and on plates 58, 59, 60, 61, and 62, Part II.

[1] Central Electric Light and Power Stations and Street and Electric Railways, 1912, Bureau of the Census, p. 64.

FUNDED DEBT.

COMMERCIAL CENTRAL STATIONS.

The total funded debt of commercial central stations in 1912 amounted to $897,907,681. The increase from 1902 to 1907 was $346,113,762, or 136 per cent; from 1907 to 1912, $297,229,996, or 49 per cent; and from 1902 to 1912, $643,343,758, or 253 per cent. In 1912 California led with $158,071,570, over $7,000,000 in excess of the next State, New York. By geographic divisions, the Middle Atlantic States lead with $263,347,898, followed by the Pacific States, with $173,386,292. This last figure is too low, for reasons previously given.

In 1902 the funded debt of all commercial central stations in the United States was 53 per cent of the reported cost of construction for the year. In 1907 the percentage had risen to 57 per cent and in 1912 had fallen to 42 per cent. For these same years capitalization, as represented by the par value of stocks and bonds combined, was 130 per cent, 127 per cent, and 98 per cent, respectively. With funded debt, as with capitalization, the lower percentages in 1912 may represent either more conservative financing, or inflations in the reported costs of construction, or both. The highest ratio of funded debt to reported cost of construction for any of the geographic divisions is 80 per cent in the West North Central States in 1907. The lowest is 23 per cent in New England in 1912. Percentages for its several geographic divisions for these census years are given in the following table:

TABLE No. 33.—*Ratio of par value of funded debt to reported cost of construction, commercial central stations, by geographic divisions, in per cent.*

	1912	1907	1902
New England	23	28	25
Middle Atlantic	46	59	72
East North Central	45	48	36
West North Central	52	80	40
South Atlantic	45	78	41
East South Central	39	50	54
West South Central	31	37	40
Mountain	37	44	53
Pacific	45	70	41
United States	43	57	53

Funded debt per capita in commercial central stations was $9.40 in 1912, as compared with $6.87 in 1907 and $3.21 in 1902. The highest amount per capita is found in California, $61.33. Montana is second, with $53.52. By geographic divisions the Pacific States are first, with an average of $37.78, followed by the Mountain States with $25.99. Only one other group—the Middle Atlantic—with $13.20, had a funded debt in commercial stations in excess of $10 per capita.

The average funded debt per horsepower of primary power in commercial central stations in the United States in 1912 was $129, a reduction from $159 in 1907 and $151 in 1902. The highest amount per horsepower is found in Idaho, with $288; the lowest is Massachusetts, with $12. By geographic divisions, the highest amount is in the Pacific States, with $189 per horsepower, followed by the Mountain States with $178 and the West North Central States with $161.

Details concerning the funded debt of commercial central stations in the several States in the aggregate, in amount and rate of increase by periods, and in amount per capita and per horsepower, may be found in Tables Nos. 34 and 35, and in plates 63, 64, 65, 66, and 67, Part II.

MUNICIPAL CENTRAL STATIONS.

The funded debt of municipal central stations in the United States in 1912 was $31,189,357, or a little less than 3.5 per cent of the funded debt of commercial stations. The increase for 1902 to 1907 was $13,734,166, or 118 per cent; from 1907 to 1912, $5,845,703, or 23 per cent; and from 1902 to 1912, $19,579,869, or 169 per cent. The corresponding percentages of increase in commercial stations were 136 per cent, 49 per cent, and 253 per cent. Of the individual States in 1912, Washington was first, with $3,683,200, followed by Ohio, with $2,533,520, and Michigan, with $2,496,601. By geographic divisions the East North Central States lead, with $7,141,321. The West North Central are second and the Pacific States third.

In four States there was a decrease in funded debt of municipal stations during the five years 1902 to 1907. From 1907 to 1912 15 more States show a decrease. Also, in the later period, three of the geographic divisions—the New England, Middle Atlantic, and East South Central States—show a decrease in total bonded debt outstanding of 11 per cent, 8 per cent, and 18 per cent, respectively. One State—Rhode Island—retired the entire bonded debt of its municipal stations between 1907 and 1912.

In 1902 the funded debt of municipal stations in the United States was 53 per cent of the reported cost of construction, or exactly the same percentage that obtained for commercial stations. In 1907 the percentage had risen to 59 per cent, as compared with 57 per cent for commercial stations. In 1912 the percentage fell to 40 per cent, 3 per cent less than for commercial stations. When it is considered that the reported cost of construction in commercial stations is more than twice as great per horsepower as in municipal stations, the more conservative financing of municipal stations is apparent. The highest ratio of bonded debt to reported cost of construction in any geographic division is 97 per cent in the East South Central States in 1907; the least ratio is 23 per cent in the East North Central States in 1912. Percentages for the several geographic divisions for the census years are given in the following table:

TABLE No. 34.—*Ratio of par value of funded debt to reported cost of construction, municipal central stations, by geographic divisions, in per cent.*

	1912	1907	1902
New England	52	74	66
Middle Atlantic	50	64	65
East North Central	23	42	46
West North Central	50	57	53
South Atlantic	55	75	63
East South Central	52	97	62
West South Central	55	72	41
Mountain	55	54	47
Pacific	55	70	55
United States	40	59	53

Funded debt per capita in municipal central stations in 1912, 1907, and 1902 was $0.33, $0.29, and $0.15, respectively, as compared with $9.40, $6.87, and $3.21 for the corresponding years in commercial stations. The highest amount per capita is found in 1912 in Washington, $2.87. The only other State which was then $1 per capita is Vermont, with $1.51. On account of the comparatively large debt in Washington, the average for the Pacific States is $1.04 per capita. The next largest group is the West North Central, with $0.44 per capita.

The average funded debt per horsepower in municipal stations for the three census years was $56 in 1912, $79 in 1907, and $73 in 1902. These figures may be compared with the corresponding figures for commercial stations of $129, $159, and $151, which are more than twice as great. The highest amount per horsepower in 1912 was $155 in Idaho, followed by $129 in Oklahoma, and $100 in South Carolina. These were the only States in 1912 with a funded debt in municipal stations of $100 or more. The highest debt per horsepower in the several groups of States in 1912 was $71 in the West South Central States. The Mountain and Pacific States were next with $66 each. The least for any group is $40 in the East North Central States.

Details concerning funded debt of the municipal central stations of the several States, in the aggregate, in amount and rate of increase by periods, and in amount per capita and per horsepower may be found in Tables 36 and 37 and on plates 68, 69, 70, 71, and 72, Part II.

INCOME, EXPENSES, AND SURPLUS.

The detailed schedules in accordance with which reports of income and expenses have been reported by the Bureau of the Census have varied considerably at the different census periods. For this reason comparisons between the data by States for the three periods can not readily be made. It would be necessary to prorate among the States certain items of expense which are given only for the United States as a whole. Among these items are interest upon funded debt, amounting to $27,991,762, which was not classed as an item of expense in 1907, although so included in 1902 and 1912. Similarly, depreciation charges of $18,843,863 and sinking-fund charges of $1,654,035, a total of $20,497,898, were included in the expenses of 1912. These items were not reported in 1902 or 1907, and therefore are omitted from the expenses as reported for those years. Tables Nos. 38 to 46, inclusive, and plates 73 to 96, inclusive, of Part II give income and expenses as reported for each census year. These tables and plates also show the difference between the income and expenses for each year as reported. On account, however, of the omissions above noted, 1912 is the only year in which gross expenses, as understood by modern accounting practice, are reported. The 1907 report gives operating expenses less depreciation and sinking-fund charges, and the 1902 report gross expenses less the same classes of charges.

The term "surplus" as used in this report is gross income less total expenses. The term "net income" is gross income less operating expenses, taxes, insurance, and depreciation charges. As thus used, except for the omission of depreciation and sinking-fund charges in 1907 and 1902, the tables and diagrams above named give gross income, total expenses, and surplus for 1912 and 1902, and gross income, total expenses, and net income for 1907.

In any analysis of income and expense accounts a clear distinction should be made between net income and surplus income, or, as the latter is often designated in public-service accounting systems, "corporate surplus," or simply "surplus." Net income is that portion of gross income remaining after the payment of operating expenses and depreciation charges, taxes, insurance, etc., and before the payment of interest or of sinking-fund charges. Net income divided by cost, or investment, gives the average rate of return upon the investment; but may not and generally does not give the rate of return, or percentage of profit, enjoyed by the owners of the enterprise, the stockholders. Evidences of indebtedness carry a fixed rate of interest. Bondholders, as such, receive a specific rate of return. They do not share in the profits or, so long as the enterprise is solvent, sustain any of its losses. The profits of a business can be determined, therefore, only by the amount of the surplus [1]—that part of the net income remaining after the interest charges have been paid. It is this amount which is available for the payment of dividends upon the stock. However, the surplus may not and generally is not devoted entirely to this purpose. A portion may be held in "reserves" as "floating capital" for the convenience of the business. A portion may be put into sinking funds for the retirement of bonded debt or into permanent capital in the form of extensions to plant. All three forms of disposition are for the benefit of the stockholders. The first facilitates the business; the second and third increase the stockholders' equity. For these reasons the amount of dividends *paid* may be little indication of the prosperity of an enterprise. The only real indication is the amount of dividends *earned;* that is, the "surplus."

In succeeding pages will be given data concerning expenses, gross and net income, and surplus of both commercial and municipal central stations for the census years 1912, 1907, and 1902. On account of the lack of a common basis of comparison for the several census years no discussion of the data for the years 1902 and 1907, or of the relation of these years to 1912, will be attempted. Attention will be directed only to the statistics of income, expenses, and surplus of commercial and municipal stations in 1912.

For purposes of comparison the data are given in the aggregate, per horsepower of primary power installed, and per horsepower-year of electric power generated. In order that there may be no misunderstanding of the data as thus reduced to amounts per unit of installation and per unit of output, attention is again called to the fundamental units employed in this report.

The term "horsepower" when applied to a machine is a unit of rate of work, not of *quantity* of work. The installed capacity in horsepower of a station represents, ordinarily, the maximum rate at which the station can operate. This does not change, regardless of whether the station is actually operating full time or is completely idle. Horsepower installation represents, therefore, ability to generate power, not power actually generated and made available for sale. The ratio between the average rate at which a station is operating during any given period of time and the installation, or maximum rate, of the plant is known as the "capacity load factor." It represents the ratio of actual utilization to complete and continuous utilization. This ratio for commercial and municipal central stations and street and electric railways for the three years 1912, 1907, and 1902 for the individual States and for the geographic divisions is given in Table 20, Part II.

[1] On account of the variations in the census schedules of expenses for the several census years, as explained on page 141, and on account of the form in which the census data are presented, the figures appearing in this report under designation of "Surplus" are net income less both interest and sinking-fund charges. Strictly speaking, the latter charges are a part of the surplus, since they are payment made for the purpose of reducing the capital debt and of increasing the stockholders' equity in the property. Actual surplus is therefore somewhat greater than is given in the report. If corrected for sinking-fund charges, the surplus for commercial central stations for 1912 would be $62,914,750, instead of $61,394,297—a difference of $1,520,453, or 2.4 per cent.

In 1912 the average ratio for the United States was 26.2 per cent, with ratios of 35.4 per cent and 32 per cent in the Mountain and Pacific States, respectively.

The unit of power generated, a *quantity* unit, is the product of the *rate* unit multiplied by the *time* unit. It may be expressed in kilowatt hours, kilowatt years, horsepower hours, or horsepower years. The only difference between these four units is one of magnitude. The kilowatt hour is the unit most often employed and is the one in which prices or rates are most often expressed; but in order to show in this report the relation between machinery installed and its average rate of use, and the relation between income, expenses, and surplus per unit of installation and per unit of output, the "unit of rate of work" has been taken uniformly as the horsepower and the "unit of time" as the year. When so taken the average rate of power generation in horsepower and the total output in horsepower years for the unit of time are *numerically* identical.

In comparing income, expenses, and surplus on the basis of these two units, it should be remembered that what a power company sells is its *output*, not its *installation*. The latter is not a quantity and hence can not represent anything sold. Rates at which power is sold are based upon output, usually in kilowatt hours, and not upon installation in generating plants. Occasionally power is sold on what is known as a "flat-rate basis"; that is, at a certain amount per horsepower or per kilowatt of installation; not, however, of the installation of the generating plant but of the installation of the motors utilizing the power. The horsepower year as a unit of quantity of electrical energy is equal to 6,535 kilowatt hours. For purposes of comparison of the two units, it is convenient to remember that a rate of 1 cent per kilowatt hour is approximately equivalent to a rate of $65 per horsepower-year.

Net income per unit of installation, when compared with cost of capitalization for the same unit, indicates the average return upon both contributed funds (stock) and borrowed funds (bonds). Surplus in the same unit indicates the return or profit or earned dividends upon the contributed funds. These are the relations in which the investor is chiefly interested. Net income and surplus per unit of output, on the other hand, when compared with gross income for the same unit, indicate what proportions of the rates paid by the public for the service rendered are retained by the public utility to pay interest upon debts and dividends upon stocks. These are the relations in which the consumer is interested.

In tables 47 to 52, inclusive, Part II, on which are shown an analysis of the income, expenses, and surplus of all central stations for the year 1912, quantities are shown only in the aggregate and reduced to the unit of output. Reductions to the unit of installation appear on tables 38 to 46, inclusive, Part II, on which tables will be found a comparison in parallel columns of income, expenses, and surplus for the year 1912, both per unit of installation and per unit of output.

COMMERCIAL CENTRAL STATIONS IN 1912.

Gross income.—The total gross income of commercial central stations in the United States in 1912 was $278,896,610, of which 94.8 per cent was derived from electric service and 5.2 per cent for all other sources. The gross income amounted to $40 per horsepower of primary power installed, and to $165 per horsepower-year of electric power generated. Of the $165, $156 was derived from electric service and $9 from all other sources.

New York is first among the States in gross income, with $56,618,990; California is second, with $27,061,034. By geographic division the Middle Atlantic States lead with $91,181,552, followed by the East North Central and the Pacific States. The figures for the latter group are too low for reasons previously given. The gross income for all stations is 13.3 per cent of the reported cost of construction and 13.6 per cent of the capitalization, as represented by the par value of outstanding stocks and bonds.

Gross income per horsepower-year of electric power generated averages $165 for the United States. The highest receipts on this basis for any State are $947 in Louisiana, followed by $518 in Delaware, Maryland, and the District of Columbia. This latter figure is the average for the two States and the District since the statistics are not given separately in the reports of the Bureau of the Census. The least gross income was in Montana, with $66 per horsepower-year. By geographic divisions, the Pacific and Mountain States are lowest, with $107 and $112 per horsepower-year, respectively, and the West South Central highest, with $342. If income from strictly electric service is considered, Louisiana receives $936 and Delaware, Maryland, and District of Columbia $510 per horsepower-year. Montana is lowest, with $56. The highest group is the West South Central, with $334, and the two lowest are the Pacific and the Mountain groups, with $102 and $105 per horsepower-year, respectively.

Total expenses.—The total expenses of all stations for the year were $217,502,313, or 78 per cent of the gross income. Of this amount 62.5 per cent was operating expense, 15.3 per cent taxes, insurance, and depreciation, and 22.2 per cent interest and sinking-fund charges. Total expenses amounted to $31.21 per horsepower of primary power installed and to $129 per horsepower-year of power generated. Total expenses were 10.4 per cent of the total reported cost of construction and 10.6 per cent of the total capitalization as represented by the par value of stocks and bonds outstanding. As in gross income, New York leads in total expense, with California second.

Average total expenses for the United States per horsepower-year of power generated are $129, of which $80 are operating expenses; $20 taxes, insurance, and depreciation; and $29 interest and sinking-fund charges. The highest expenses per horsepower-year are reported in Louisiana, $658. The next is $405 in Maryland and District of Columbia; the lowest is $41 in Montana. By geographic divisions the Mountain and Pacific States are lowest, with $87 and $89 per horsepower-year, respectively.

Operating expenses per horsepower-year, with an average of $80, are highest in Louisiana, with $417; second in North Dakota, with $253; lowest in Montana, with $18. By groups of States the Mountain and Pacific States are still the lowest, with $48 and $50, respectively.

Taxes, insurance, and depreciation per horsepower-year, with an average of $20, are highest in Louisiana and second in Maryland and District of Columbia. The lowest four States, North Carolina, South Carolina, Montana, and Nevada, have the minimum figure of $4 each. The average for the Mountain group is $8, and for the Pacific group $12.

Interest and sinking-fund charges per horsepower-year, with an average of $29, vary from $139 in Louisiana and $117 in Maryland and District of Columbia to $11 in South Carolina. The lowest groups are the New England and East North Central, with $24 each. The Pacific and Mountain groups, $27 and $31, respectively.

Net income.—This is taken as gross income, less operating expenses, taxes, insurance, and depreciation. The total net income for all stations in 1912 was $109,779,513, or $15.75 per horsepower of primary power and $65 per horsepower-year of output. Total net income amounted to 5.23 per cent upon the reported cost of commercial stations and 5.35 per cent upon the total capitalization as represented by the par value of outstanding stocks and bonds. In net income New York leads with $21,414,116, followed by California, with $11,518,247. By geographic divisions the Middle Atlantic States lead with $35,964,388, followed by the East North Central and the Pacific States in the order named.

Net income per horsepower-year of power generated, with an average of $65 in 1912, varies from $428 in Louisiana and $243 in Delaware, to a minimum of $35 in Kansas. By geographic divisions the Pacific and Mountain States were lowest with $45 and $56, respectively. The West South Central States were highest with $132.

The ratio of net to gross income for all stations is 39.4 per cent. This ratio varies from a maximum of 67.5 per cent in Montana to a minimum of 26.5 per cent in New Mexico. The highest ratio by geographic divisions is found in the Mountain States, 50.6 per cent; the lowest in the East North Central States, 34.1 per cent. Ratios for the several States are given in Table No. 50, Part II.

Surplus.—This is taken as net income less interest and sinking-fund charges.[1] It represents the amount available for the payment of dividends. The total for the United States in 1912 was $61,394,297, or 56 per cent of the net income for the year. This may be compared with the $34,580,872 reported to the Bureau of the Census as having actually been paid in dividends on preferred and common stock in 1912.

The total par value of common and preferred stock of commerical central stations outstanding in 1912 was $1,154,587,016. These figures contain duplications due to stocks held in the treasuries of the issuing companies and to intercompany holdings of stocks. Treasury stock amounted to $16,418,819. Intercompany holdings of stocks are not reported separately from intercompany holdings of bonds, but the two together for the year 1912 amounted to $77,787,160. Were this all bonds, the amount of stock entitled to participate in dividends would have been $1,138,168,197, on which the surplus of $61,394,297 would have been sufficient to pay dividends of 5.39 per cent. Were the entire intercompany holdings stock, the duplications would be $94,205,979 and the net amount of outstanding stock $1,060,381,037, upon which the above surplus would have been sufficient to pay dividends of 5.79 per cent. If it be assumed that the intercompany holdings were half stock and half bonds, the total duplications amounted to $55,312,399, leaving $1,099,274,617 entitled to participate in dividends, upon which the surplus would have been sufficient to pay a dividend of 5.58 per cent.

[1] See note, p. 48.

The amount actually earned presumably approximates this figure of 5.58 per cent, with 5.39 per cent and 5.79 per cent as extreme limits of variation established by assumptions manifestly improbable.[1] The dividends of $34,580,872, reported to the Bureau of the Census as having actually been paid on both common and preferred stocks in 1912, amount to an average dividend rate of 3.04 per cent, 3.15 per cent, or 3.26 per cent, according to whether the intercompany holdings of securities be assumed as all bonds, half bonds and half stock, or all stock. These figures may be compared with the average interest rate of 4.52 per cent paid during the same period by commercial central stations as interest upon a floating and funded debt of $1,035,634,066.

The total par value of common and preferred stock of the 11 Western States in 1912 was $372,681,939. These figures, like those for the United States as a whole, contain duplications due to stocks held in the treasuries of the issuing companies and to intercompany holdings of stock. The amount of treasury stock was $5,828,644. If the intercompany holdings of securities be assumed as all bonds, the amount of treasury stock is the only duplication and the remainder of $366,853,295 represents the amount entitled to participate in dividends. Upon this the surplus of $8,364,903 would have been sufficient to pay a dividend of 2.28 per cent. If the intercompany holdings of securities are assumed to be all stock, the total duplications are $28,872,730, leaving $343,809,209 entitled to participate in dividends, upon which the surplus would have been sufficient to pay a dividend of 2.43 per cent.

If it be assumed that the intercompany holdings of securities were half stock and half bonds, the total duplication amounts to $17,350,687, leaving a balance of $355,331,252 entitled to participate in dividends, upon which the surplus would have been sufficient to pay a dividend of 2.35 per cent. The amount actually earned will approximate this figure of 2.35 per cent, with 2.28 per cent and 2.43 per cent as the extreme limits of variation established, as before, by assumptions manifestly improbable.[2] These rates of dividends earned are less than one-half the figures for the United States as a whole. Whether these figures mean a less return upon the money actually invested or a considerable overcapitalization can not be determined; but it is at least interesting to note that the amount of capital stock outstanding in the Western States in 1912 was $266[3] per horsepower of primary power installation, as compared with $158[3] for the United States as a whole. The average rate of interest paid on a funded and floating debt of $274,250,571 in the Western States during 1912 was 4.17 per cent, somewhat less than the average rate of interest for the United States as a whole.

Among the individual States, New York shows the highest surplus, $12,779,122. Illinois is second with $5,750,497, and California third with $4,712,619, followed closely by Massachusetts with $4,392,802. By geographic divisions, the Middle Atlantic States are first with $20,382,097, followed by the East North Central, the New England, the West North Central, and the Pacific States, in the order named.

[1] If the surplus be taken as $62,914,750, as explained in the footnote to p. 48, it would have been sufficient to pay dividends of 5.53 per cent, 5.72 per cent, and 5.93 per cent, according to whether the intercompany holdings of securities be assumed as all bonds, half bonds and half stock, or all stock.

[2] If to the surplus as above given be added the $226,225 of sinking fund charges, as explained in the footnote to page 48, the total of $8,591,128 would have been sufficient to pay dividends of 2.34 per cent, 2.42 per cent, or 2.50 per cent, according to whether the intercompany holdings of securities be assumed as all bonds, half bonds and half stocks, or all stock.

[3] Assuming that intercompany holdings of securities are half bonds and half stock.

The average surplus for the United States per horsepower-year of power generated is $36. The highest States are Louisiana, $289; Delaware, $150; Maryland and District of Columbia, $113; and Iowa, $107. No other State shows over $100. The lowest are Idaho, $3; Georgia, $9; Kansas, $15; and California and Michigan, $18 each. By geographic divisions the Pacific States are lowest with $18. The West South Central are highest with $92.

Detailed figures for the several States may be found in Tables Nos. 49 and 50 and on plates 97 and 98, Part II.

MUNICIPAL CENTRAL STATIONS IN 1912.

Gross income.—Gross income for municipal central stations includes in addition to actual receipts the estimated value of free service, the total of which in 1912 equaled 20 per cent of the amount credited to electric service. The total gross income of all municipal central stations in the United States in 1912 was $23,218,989, or 8.3 per cent of the gross income of commercial stations. Income from electric service afforded 97.6 per cent of the total gross income, amounting to $42 per horsepower of primary power installed as compared with $40 in commercial stations, and to $281 per horsepower-year of electric power generated, as compared with $165 for commercial stations. Of the $281, $274 was for electric service and $7 from all other sources. In commercial stations the income from electric service was $156; from all other sources, $9.

Illinois leads in gross income with $2,405,465. The States of Michigan, Ohio, Washington, Indiana, Massachusetts, and Minnesota, in the order named, have gross incomes of municipal stations in excess of $1,000,000. By geographic divisions the East North Central States lead with $7,654,814, one-third of the total for the United States. The gross income for all stations is 30 per cent of the reported cost of construction, as compared with 13.3 per cent for commercial stations.

Gross income per horsepower-year of power generated in municipal stations averages $281 for the United States. The highest figure is $821 in South Dakota, the lowest $151 in Illinois. The average by geographic division is highest in the West North Central States, with $423, the lowest in East North Central with $201. The average income from electric service alone is $274 per horsepower-year, varying from $800 in South Dakota to $150 in Illinois. The average income from all other sources is $7 for the United States, varying from nothing in Rhode Island, Virginia, Wyoming, and New Mexico to $40 per horsepower-year in Iowa. All of the West North Central States have a considerable income from sources other than electric service. The average for the groups is $20 per horsepower-year or nearly three times the average for the United States.

Total expenses.—The total expenses of all stations for the year were $16,917,165, or 72.8 per cent of gross income. Of this amount, 84.5 per cent was operating expenses; 6.2 per cent taxes, insurance, and depreciation; and 9.3 per cent interest and sinking-fund charges. The corresponding percentages for commercial stations were 62.5 per cent, 15.3 per cent, and 22.2 per cent. While some stations appear to have charged estimated taxes upon the municipal property engaged in electric service, the practice is not general, for no taxes are reported for 29 States. Total expenses were 22 per cent of the reported cost of construction. The highest total expenses for any State are in Illinois, and for any of the geographic divisions, in the East North Central.

Average total expenses for the United States per horsepower-year of power generated are $205, of which $173 are operating expenses; $13, taxes, insurance and depreciation; and $19, interest and sinking-fund charges. The corresponding figures for commercial stations are: Total expenses, $129; operating expenses, $80; taxes, etc., $20; and interest, etc., $29. The highest expenses per horsepower-year are reported from South Dakota, $630; and the lowest, from Illinois, $105. Of the geographic divisions the East North Central States have the lowest average, $144, and the West North Central the highest, $329.

Operating expenses per horsepower-year averaged $173 for all municipal stations as compared with $80 for commercial stations, varying from a maximum of $511 in South Dakota to a minimum of $92 in Illinois, this minimum being higher than the average for commercial stations.

Taxes, insurance, and depreciation per horsepower-year average $13 for municipal stations as compared with $20 for commercial stations, varying from a maximum of $75 in South Dakota to a minimum of $1 in Oregon. The highest averages by geographic divisions are found in New England, $29, and in the Pacific States, $22.

Interest and sinking-fund charges per horsepower-year average $19 for all municipal stations, as compared with $29 for commercial stations, varying from a maximum of $83 in Wyoming to a minimum of $3 in Kentucky. By groups of States, the highest amount is found in the West South Central States, $35, the lowest in the Eas North Central States.

Net income.—The total net income for all municipal stations in 1912 amounted to $7,873,543, or 7.2 per cent of the net income of commercial stations. The net income of municipal stations for the year is 10.22 per cent of the reported cost of construction as compared with 5.23 per cent for commercial stations. The reported cost of commercial stations, however, is more than twice as much per horsepower as the reported cost of municipal stations. In net income Illinois leads with $803,219, Washington is second with $637,227. By geographic divisions the East North Central, West North Central, and South Atlantic States lead in the order named with more than $1,000,000 for each group.

Net income per horsepower-year of power generated in municipal stations averages $95, as compared with $65 for commercial stations, varying from a maximum of $304 in Idaho to a minimum of $46 in Kentucky. By geographic divisions the Mountain States have the highest net income per horsepower-year, $134, and the East North Central States the lowest, $67.

The average ratio of net to gross income in municipal stations is 33.9 per cent as compared with 39.4 per cent for commercial stations. This ratio varies from a maximum of 56.3 per cent in Tennessee to a minimum of 20.9 per cent in Oklahoma.

Surplus.—The total surplus income of municipal stations in 1912 was $6,301,824, or 80 per cent of the net income, as compared with 56 per cent for commercial stations. The high percentage of municipal stations is due to a lower funded debt, the debt per horsepower of primary power in 1912 being $56 for municipal stations, as compared with $129 for commercial stations.

Among the individual States Illinois shows the highest surplus, $736,913, followed by Washington, with $527,886. By geographic divisions the East North

Central States lead with $2,180,518, more than a third of the total for the United States.

The average surplus for all stations per horsepower-year of power generated is $76, as compared with $36 for commercial stations, varying from a maximum of $250 in Rhode Island to a minimum of $18 in Oklahoma. By geographic divisions the South Atlantic States show the highest surplus, $107 per horsepower-year, the East North Central States lowest, $57 per horsepower-year.

Detailed figures for the several States may be found in Tables Nos. 51 and 52 and on plates 99 and 100, Part II.

Municipalities issue no stock in connection with their electric power enterprises. The Bureau of the Census uses the reported cost of construction as representing what would be the probable capitalization of such stations. Since the reported cost of commercial stations varies but slightly from their capitalization as represented by the par value of outstanding stocks and bonds, the assumption made with respect to municipal stations seems a reasonable one for purposes of comparison. The reported cost of municipal stations in 1912 was $77,065,144. If from this figure be subtracted the funded debt of $31,189,357, the balance of $45,875,787 may be considered as the amount of stock which might be issued against the properties of all municipalities engaged in the electric power business if stock was issued against such properties. Upon this amount a surplus of $6,301,824 for 1912 was sufficient to have paid a dividend of 13.75 per cent as compared with 5.58 per cent for commercial stations. This difference is mainly due to the higher reported cost of construction of the commercial stations. The average interest rate paid upon the funded and floating debt of municipal stations in 1912 was 3.98 per cent as compared with 4.52 per cent for commercial stations.

COMMERCIAL AND MUNICIPAL CENTRAL STATIONS.

On account of the small proportion of the total electric business done by municipal stations, the data for commercial and municipal stations combined are not materially different from those for commercial stations alone. The combined data, however, covering income, expenses, and surplus, have been computed and are given in Tables Nos. 47 and 48 and on plates 101 and 102, Part II.

COMPARATIVE FINANCES OF COMMERCIAL AND MUNICIPAL CENTRAL STATIONS.

The comparisons which have been drawn in the preceding pages between commercial and municipal stations show a considerable variation between the corresponding data for the two classes of stations. The total reported cost of municipal stations is 3.5 per cent of the reported cost of commercial stations. As far as "cost" may be taken as representing investment, commercial-station business is increasing at a more rapid rate than municipal. Since, however, costs of commercial stations are reported at more than twice the cost for municipal stations, it may be doubted whether municipal development is really proceeding at a less rate of increase than commercial-station development.

Since municipalities issued no stock on their plant, no comparison of capitalization can be made. The funded debt of municipal stations in 1912 bears approximately the same ratio to that of commercial stations as obtains in the reported cost of each. The funded debt per horsepower of primary power in commercial central stations in 1912 was more than twice the debt in municipal stations, being $129 per horsepower for the former and $56 for the latter.

The gross income of municipal central stations is 8.3 per cent of the income of commercial stations as compared with 3.5 per cent of reported cost of construction. Income from electric service was 97.6 per cent of the total for municipal stations, 94.8 per cent for commercial stations. Municipal income was $42 per horsepower of primary power, as compared with $40 for commercial stations, and $281 per horsepower-year of power generated as compared with $165 for commercial stations.

Total expenses of municipal stations are 73 per cent of the gross income; of commercial stations, 78 per cent. Of the municipal expenses, 84.5 per cent are chargeable to operation; of the commercial, 62.5 per cent. Taxes, insurance, and depreciation form 6.2 per cent and interest and sinking-fund charges 9.3 per cent of municipal expenses. The corresponding percentages for commercial stations are 15.3 per cent and 22.2 per cent. Total expenses of municipal stations amounted to $205 per horsepower-year of power generated; of commercial stations, to $129.

The net income of all municipal stations in 1912 was 7.2 per cent of the income of commercial stations, and amounted to 10.2 per cent upon the reported cost of construction as compared with 5.23 per cent for commercial stations. Such comparison, however, should take into account the fact that reported cost of commercial stations is more than twice that of municipal stations. Per horsepower-year of power generated, the net income of municipal stations was $95; of commercial stations, $65. The ratio of net income to gross income in municipal stations is 33.9 per cent; in commercial stations, 39.4 per cent.

The surplus for municipal stations in 1912 was 80 per cent of the net income; for commercial stations, 56 per cent; and amounted to $76 per horsepower-year of power generated for the former and $36 for the latter.

RELATIVE POSITION OF THE WESTERN STATES IN ELECTRIC POWER FINANCES.

The remarkable increase in power development in the Western States in recent years is still further evidenced by a consideration of the finances of commercial and municipal central stations, particularly the former. Although, in total reported cost of construction up to 1912, the Middle Atlantic States stand ahead of the Pacific States in actual increase for the period from 1902 to 1912, a Western State, California, with an increase of $308,000,000, leads all other States by more than $70,000,000. This one State had an average annual increase for 10 years of more than $30,000,000 and for the 5 years, 1907 to 1912, of more than $43,000,000. Only five other States increased as much for the five-year period as California for each year of the period.

The average rate of increase in plant investment, or "cost," of commercial stations in the Western States from 1902 to 1912 was nearly three times as great as for the remainder of the United States and more than three and one-half times the rate for the Eastern States. The investment, or "cost," per capita in the Western States is four and one-half times as great as in the remainder of the United States.

In the capitalization of commercial power companies, as represented by the par value of outstanding stocks and bonds, California leads all the other States by more than $60,000,000, having from 1902 to 1912 increased its outstanding capitalization by $373,000,000, or nearly three times as much as any other State. The increase in capitalization for the 10 years in the Pacific States is nearly $100,000,000 in excess of that of any other group. Capitalization per capita and per horsepower of primary power was greater in the Western States in 1912 than in any other section of the country, amounting to $464 per horsepower as compared with $295 for the United States as a whole.

In funded debt as in capitalization of commercial stations, California leads all other States by more than $7,000,000. The increase from 1902 to 1912 in the Western States was 704 per cent, more than three and one-half times the increase in the remainder of the United States (191 per cent). The funded debt per horsepower of primary power in the Western States is $185 as compared with $115 for the remainder of the United States. The higher reported cost, higher capitalization, and higher funded debt per primary horsepower in the Western States may be largely explained by the greater proportion of water-power development at considerable distances from the markets supplied and the large investments required for the extensive transmission systems which are such a prominent feature of western power development.

In gross income from commercial central station operations in 1912 California was second only to New York. Average rates for power sold are less in the Western States than in any other section, as evidenced by an income from electric service per horsepower-year in 1912 of but 59 per cent of the similar income in the remainder of the United States. The average net income per horsepower-year in the Western States in 1912 was $49 as compared with $70 in the remainder of the United States, and an average of $65 for the United States as a whole. The "surplus" from commercial central station operations in the Western States in 1912 was $20.46 per horsepower-year, or less than half the amount, $41.54, available in the remainder of the United States and but 56 per cent of the average, $36, for the United States as a whole. The ratio of net to gross income is considerably greater in the Western States than in the remainder of the United States, being 45 per cent for the former and 38 per cent for the latter.

CONCENTRATION IN CONTROL OF ELECTRIC POWER.

There are several lines of evidence which show a continuously increasing tendency toward concentration in the control of the development, distribution, and sale of electric power. Each year shows a greater percentage of electric power being produced by commercial central stations—the public-service corporations. Each year also shows a few of the more prominent groups of interests securing control of a larger proportion of the central-station business. Some corporations, like the Utah Securities Corporation, the Montana Power Co., and the Pacific Gas & Electric Co., dominate a single compact territory; others, like Stone & Webster, H. M. Byllesby & Co., and the Doherty Operating Co., spread their operations widely, controlling smaller groups of operating companies in many distinct territories. Sometimes the character of the control is definite and distinct through actual ownership of properties or majority holdings of the stock or direct management of operating companies; sometimes it is indistinct and indefinite through representation on boards of directors. How great a degree of control is exercised in any particular case through mere representation on boards of directors is uncertain. It is scarcely to be supposed, however, that such representation is without influence even though the degree of influence may be problematical. Again, it will be found that many electric power corporations, particularly the holding companies, have representation through common directors in certain of the larger banking corporations. Whether this means the exercise of an influence by power corporations over the policies of the banking corporations, or vice versa, or how important such influence may be in any given instance, is indeterminate from any public sources of information. Suffice it to say that did such influence reach to the extent of control it would be of serious public concern. A control of the sources of credit would mean a control of the entire industry, would be the most effective means of stifling competition, and, regardless of how well the industry might be controlled in its service operations by public agencies, would leave the opportunities of engaging in the business and the initiation of new enterprises in the hands of the few.

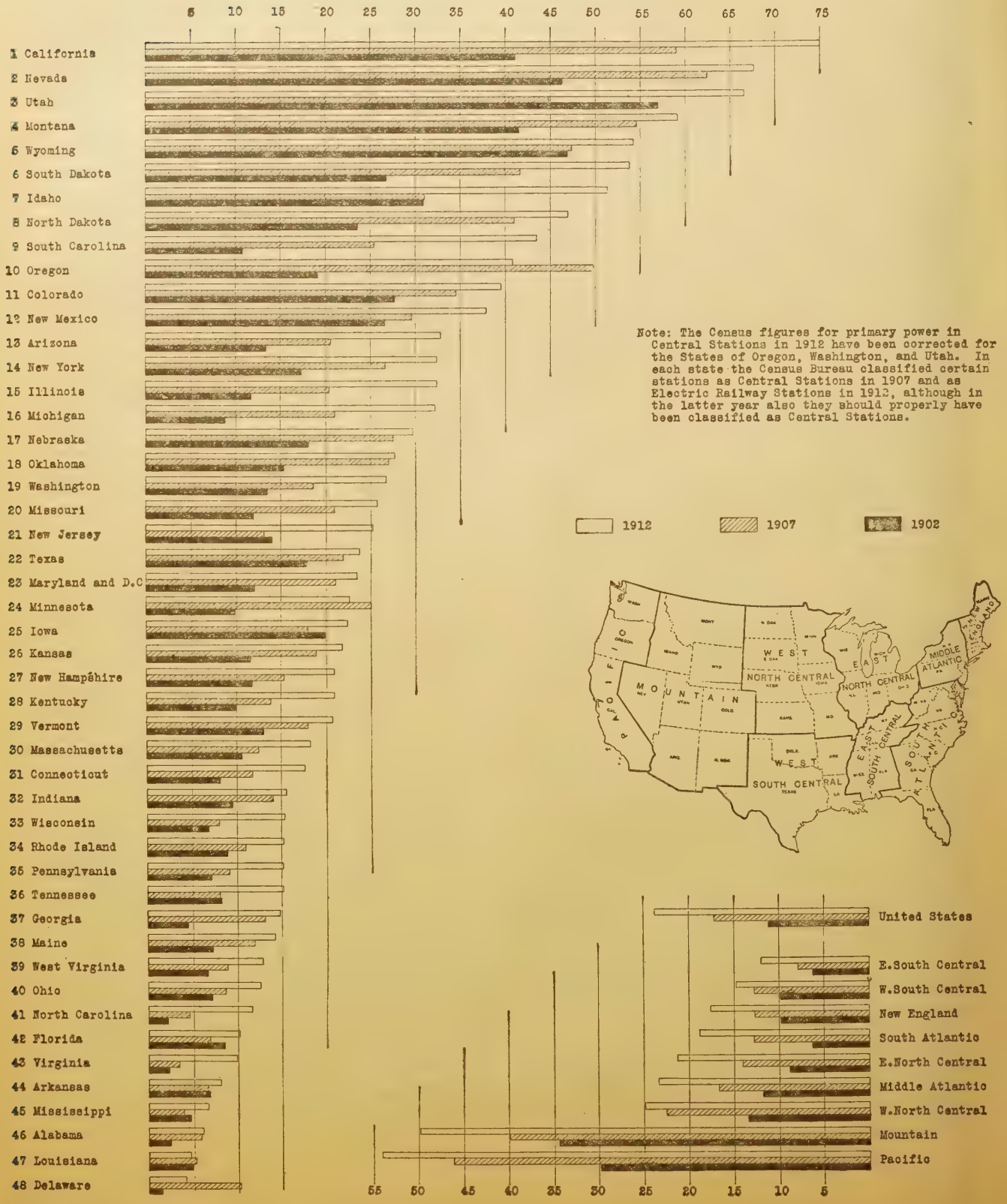
In the succeeding pages will be discussed the general concentration of the electric-power business into the hands of public-service corporations, the proportion of control which certain corporations exercise over the development of electric power in the several States, the extension of the operations of certain holding companies into several States and the steps by which they had secured control, the relation by common directors which exists between the several holding companies, and the relation through common directors of certain banking corporations to the electric-power holding companies.

INCREASE IN PROPORTION OF CENTRAL STATIONS POWER.

The tendency toward concentration of power development into the control of public utility corporations is clearly indicated by the statistics of primary power presented in the reports of the Bureau of the Census for 1902, 1907, and 1912, statistics which have been discussed in other connections in this report. Of all primary power—steam, water, and gas—employed in the electrical industry and in manufactures in 1902, 11.2 per cent was installed in commercial central stations. The proportion rose to 17.2 per cent in 1907 and to 23.8 per cent in 1912, more than doubling in the 10 years from 1902 to 1912. (See Plate X.) This movement toward concentration is found in all sections of the United States. The rate of increase in concentration was highest in the South Atlantic States, which had three times as great a proportion of primary power in commercial central stations in 1912 as in 1902. The extent of the concentration is greatest in the Western States. One-half of all primary power of all kinds in the Mountain States in 1912 was owned by public-service corporations and 54 per cent in the Pacific States. In California the proportion was three-fourths. To-day, only three years later, public-serv-

RATIO OF CENTRAL STATION PRIMARY POWER TO TOTAL PRIMARY POWER, 1912, 1907 AND 1902 PLATE X

By States and by Geographic Divisions
In Per Cent of Total Power



Note: The Census figures for primary power in Central Stations in 1912 have been corrected for the States of Oregon, Washington, and Utah. In each state the Census Bureau classified certain stations as Central Stations in 1907 and as Electric Railway Stations in 1913, although in the latter year also they should properly have been classified as Central Stations.

To accompany report on Sen. Res. No. 544, 62nd. Cong., 3rd. Sess.

ice corporations own 90 per cent of all the primary power in those two groups of States. Although the 1915 data are not sufficiently complete in the other sections, particularly concerning power used in manufactures, to give definite percentages, it is probable that in the South Atlantic States the percentage of power controlled by public utility companies is well above 50 per cent, as compared with less than 20 per cent in 1912. Wherever marked activity in hydroelectric power development exists, as it has existed in recent years in the Western and Southern States, there especially is found in its highest degree the concentration of ownership by public-service corporations.

This particular tendency toward concentration need by no means be of ill omen. Monopolization of the supply in any given territory makes possible through interconnections of stations and through diversification of load, economics of operation that would not be possible for isolated independent stations. Interruptions to service may be lessened, the needs of the customer may be better served, and rates may be lower with a single power system than with several. No better service is given and no lower rates charged than in California where, notwithstanding the considerable municipal development, 90 per cent of the total primary power is owned by public-service corporations, or in Montana, where 89 per cent is owned by two affiliated corporations. Having the ability to give the better service and the lower rates, it only remains for the proper public agency to require it.

EXTENT OF CONTROL BY CERTAIN CORPORATIONS.

CONTROL BY OWNERSHIP OF STOCK OR PROPERTIES, OR BY LEASE OR MANAGEMENT.

From the detailed tabulations of companies, stations, and installations by States as given in Table No. 55, Part II, summary tables have been made showing the total water power, the total steam and gas power, and the total power of all kinds controlled by the principal corporations in each State, together with individual and cumulative percentages.

The names given are those of holding companies. The names of operating companies may be found on the detailed tabulations under the references as given on the summary table. In so far as the companies listed on the summary tables appear on the organization charts and the interconnecting directorates charts, they may be located by the reference lists which precede each set of charts.

In general, there have been included in the summary tables all corporations that own or control more than 1 per cent of the total power in a State. Only that degree of control which is represented by ownership of properties, majority stock ownership, management, or lease has been considered. In each table is also given the amount and the per cent of water power and of total power owned by municipalities, the total installation for the State in 1915 as appearing in the detailed tabulations, and the total installation in central stations and electric railways as reported by the Bureau of the Census for 1912. As on the detail tabulations the data, in general, include only commercial and municipal central stations and street and electric railways—the electrical industry. For the Western States, however, it is believed that the data are practically complete for all power. This is true as far as water powers are concerned in many of the other States, but no attempt has been made to secure complete statistics of steam power in manufactures in the Central, Eastern, or Southern States. The chief purpose of this branch of the investigation has been to determine what proportion of the total power developed by municipalities and by public-service corporations is controlled by a limited number of such corporations. The percentages of control, therefore, as given in the tables and in the following résumés by States have reference, unless otherwise noted, to the proportions controlled by certain corporations and municipalities out of the total power developed by commercial and municipal central stations and by street and electric railways.

The summary tables for the several States appear in Table No. 54, Part II. Brief résumés follow for each State, showing to what extent the movement toward concentration has progressed.

Alabama.—One company, the Alabama Traction, Light & Power Co., has 87.9 per cent of the developed water power and 57.1 per cent of the total power of the State. Eight corporations control 90.1 per cent of the total power, and three of these 98.8 per cent of the water power. Thirty-four municipalities have but 0.8 per cent of the water power and 4.7 per cent of the total power.

Arizona.—Five companies control 47.4 per cent of the total power. Only one of these, the Arizona Power Co., has developed any water power. It has 26.8 per cent of the total for the State. The greater part of the developed water power is owned by the United States Reclamation Service, which, together with two municipalities, has 72.1 per cent of the water power and 27.6 per cent of the total power.

Arkansas.—Water power affords but little over 4 per cent of the total power. So far as data of developed water power could be secured, the total appears to be owned by two companies. Eleven companies control 73.5 per cent of the total power from all sources. The 17 municipal power stations have no water power and but 9.9 per cent of the total power in the State.

California.—Fifteen corporations control 88.6 per cent of the total primary power in the State, and 12 control 87.8 per cent of all the developed water power. Of these the largest is the Pacific Gas & Electric Co. with 20.1 per cent of the water power, or 152,080 horsepower, and 20.5 per cent of the total power, or 260,620 horsepower. Four corporations, the Pacific Gas & Electric Co., the Pacific Light & Power Corporation, the Southern California Edison Co., and the Western Power Co., together control more than half of both the water power and the total power in the State. Municipal developments comprise 6.3 per cent of the water power and 4.5 per cent of the total power.

Colorado.—Eight corporations control 73 per cent of the total power and five of these control 77 per cent of the water power. The largest is the Colorado Power Co. with 45.2 per cent of the water power and 24 per cent of the total power. This company, together with the Doherty Operating Co., the Utah Securities Corporation, and H. M. Byllesby & Co., control 68 per cent of the water power and 54.4 per cent of the total power. Ten municipalities own only 1.1 per cent of the water power and 1.9 per cent of the total power.

Connecticut.—Eight corporations control 92.7 per cent of the developed water power. Of these, one concern, Stone & Webster, controls 38.2 per cent. Four companies, the New York, New Haven & Hartford Railroad Co., the United Illuminating Co., The Hart-

ford Electric Light Co., and Stone & Webster control 63 per cent of the water power in the State. These four together with 11 others control 87.1 per cent of the total power. The six municipal plants have no water power and but 5.6 per cent of the total power.

Delaware.—The National Properties Co. controls 81.8 per cent of the total electric power installation for which data have been secured. Six municipalities have 8.5 per cent. Water-power development is negligible.

Florida.—Two concerns—Stone & Webster and the Florida Power Co.—control 99.6 per cent of the developed water power and 32.7 per cent of the total power. Eight companies control 58.6 per cent of the total power. Seventeen municipalities control 26.6 per cent of the total power, but have no water power.

Georgia.—Four companies—the Georgia Railway & Power Co., Stone & Webster, the Georgia Light, Power & Railways Co., and J. G. White & Co. (Inc.)—control 84.4 per cent of the developed water power and 73.8 per cent of the total power. Twelve companies control 88.1 per cent of the total power and 10 of these control 93.7 per cent of the water power. Seventy-five municipalities own but 0.7 per cent of the water power and 5.2 per cent of the total power. Of the total power for the State, as shown on the summary table, 5.8 per cent is used in manufacturing. On account of this inclusion, the percentages of control of strictly public-service power by certain corporations are greater than the above figures would indicate.

Idaho.—The Utah Securities Corporation controls 48.3 per cent of the developed water power and 45.5 per cent of the total power. This company, together with the National Securities Corporation, controls 70.8 per cent of the water power and 67.9 per cent of the total power in the State. The United States Reclamation Service and four municipalities control 9.4 per cent of the water power and 8.8 per cent of the total power.

Illinois.—Only 29.1 per cent of the developed water power is controlled by the major corporatons. Of the total power, however, 89.2 per cent is controlled by 13 public-service corporations, one of which, the Commonwealth Edison Co., controls 55.6 per cent of the total developed power. Eighty-six municipalities, including the Chicago Sanitary District, have 63.4 per cent of the developed water power and 6 per cent of the total power.

Indiana.—This State has a relatively small water-power development. Of such development as has been made, 70.5 per cent is controlled by the Middle West Utilities Co. and the Indiana & Michigan Electric Co., the former with 54.4 per cent, the latter with 16.1 per cent. Thirteen corporations control 75 per cent of the total power, while 70 municipalities have but 2.5 per cent of the water power and 9 per cent of the total power.

Iowa.—Stone & Webster control 94.1 per cent of the total developed water power, equivalent to 47.4 per cent of the total power in the State. Thirteen corporations together control 80.7 per cent of the total power, and five of these 96.1 per cent of the water power. Seventy municipalities have 0.4 per cent of the water power and 5.3 per cent of the total power.

Kansas.—The Doherty Operating Co. controls 59.9 per cent of the developed water power. This company with two others controls 81.4 per cent of the water power. Seven concerns control 46.7 per cent of the total power in the State. Ninety municipal stations have 1.1 per cent of the water power and 24 per cent of the total power.

Kentucky.—As far as data are available there is no water-power development in this State by central stations or electric railways. Two companies, the Louisville Traction Co. and H. M. Byllesby & Co., control 60.6 per cent of the total developed steam power. Eleven companies control 84.7 per cent of the total power, and 18 municipalities 6 per cent.

Louisiana.—This State has no water-power development of consequence. One concern, the United Gas & Electric Corporation of Connecticut, controls 73.4 per cent of the total developed power from all sources. Six companies control 85.1 per cent. Twenty-five municipalities have 8.9 per cent of the total for the State.

Maine.—Over 58 per cent, chiefly water power, of the total power shown for the State of Maine is used in manufacturing. Of the total thus shown the largest percentages are controlled by the E. W. Clark Management Corporation, with 13.4 per cent of the water power and 16.4 per cent of the total power, and the International Paper Co. with 16.5 per cent of the water power and 15.9 per cent of the total power. Sixteen concerns control 91.1 per cent of the water power and 91 per cent of the total power. Five municipalities have only 0.7 per cent of the water power and 0.8 per cent of the total power.

Maryland and District of Columbia.—Water-power developments are of little importance, affording but 1.5 per cent of the total developed power. Nine companies control 94.9 per cent of the total power, and three of these, the United Railways & Electric Co. of Baltimore, the Consolidated Electric Light & Power Co. of Baltimore, and the Washington Railway & Electric Co., control 78.8 per cent of the total developed power. Seven municipal stations in Maryland have but 1.1 per cent of the total power developed in the State and District of Columbia combined.

Massachusetts.—Nineteen corporations control 83.5 per cent of the total power in the State, and eight of these control 77.8 per cent of the water power. Two companies, the New England Power Co. of Maine and the Turners Falls Power & Electric Co., control 56.2 per cent of the developed water power. Thirty-three municipal stations have 0.8 per cent of the water power and 4.2 per cent of the total power.

Michigan.—Eighteen corporations control 79.5 per cent of the total developed power and 15 of these control 76.2 per cent of the developed water power. Two concerns, the North American Co. and the Commonwealth Power, Railway & Light Co., control 53 per cent of the total power, and two, the Commonwealth Power, Railway & Light Co. and the Union Carbide Co., control 47.6 per cent of the water power. One hundred and four municipalities own 5.1 per cent of the developed water power and 8.8 per cent of the total power. Of the total power for the State as given in the summary tables, 4.2 per cent is used in manufacturing. Were it not for this inclusion, the percentage of control by certain companies of strictly public service power would be somewhat greater than the above figures indicate.

Minnesota.—Twelve companies control 89.9 per cent of the water power and 82.2 per cent of the total power. Four of these control 71.9 per cent of the water power and 65.4 per cent of the total power. One hundred and fifteen municipalities have only one-half of 1 per cent of the water power and 5.7 per cent of the total power.

Mississippi.—So far as data are available, Mississippi has no water power developed by public-service corpo-

rations. In the total power there is no marked concentration, the largest amount controlled by one concern, the Gulfport & Mississippi Coast Traction Co., being 14.1 per cent. Forty-two municipal stations have 25 per cent of the total power of the State.

Missouri.—Nine corporations control 86.3 per cent of the total power, and one, the Doherty Operating Co., controls 98.7 per cent of the water power. Three companies, the North American Co., the Doherty Operating Co., and the Kansas City Railway & Light Co., control 78 per cent of the total power in the State. Six per cent of the total is developed in municipal stations.

Montana.—Four corporations control 97.4 per cent of the water power and 91.8 per cent of the total power. Two of these, the Montana Power Co. and the Amalgamated Copper Co., affiliated concerns, control 94.4 per cent of the water power and 88.7 per cent of the total power. Municipal plants have no water power and but four-tenths of 1 per cent of the total power.

Nebraska.—Only 23.6 per cent of the developed water power is controlled by the major electric power corporations. The most important of these corporations are the Omaha Electric Light & Power Co. and the Omaha & Council Bluffs Street Railway Co. These two companies control 48 per cent of the public-service power in the State, but have no water power. The 73 municipal stations have 46.8 per cent of the developed water power and 19.7 per cent of the total power.

Nevada.—One concern, Stone & Webster, controls 73.6 per cent of the water power. This company, together with the Utah Copper Co., control 74.1 per cent of the total power in the State; 18.7 per cent of the water power is owned by the United States Reclamation Service. There are no municipal developments, although one town purchases and distributes power.

New Hampshire.—Three manufacturing concerns—the Berlin Mills Co., the Amoskeag Manufacturing Co., and the International Paper Co.—have 64 per cent of the developed water power and 48 per cent of the total power. Fourteen companies, both manufacturing and public service, control 88.1 per cent of the water power and 85.9 per cent of the total power. Two municipalities have 0.6 per cent of the water power and 0.8 per cent of the total power.

New Jersey.—Less than 3 per cent of the total power in the State is water power. Of this amount 87.5 per cent is controlled by two companies, the New Jersey General Security Co. and W. S. Barstow & Co. Of the total power 68.6 per cent is controlled by one concern, the Public Service Corporation of New Jersey. Nine other concerns together control 17.2 per cent of the total power. Ten municipalities have 1.1 per cent of the water power and 0.9 per cent of the total power.

New Mexico.—Water power affords less than 4 per cent of the total developed power. Of the total power the Federal Light & Traction Co. controls 37.1 per cent. Eight companies together have 66.9 per cent of the total. The United States Reclamation Service and certain municipalities, with four stations, have 22.9 per cent of the total developed power.

New York.—Twenty corporations control 81.4 per cent of the total developed power, and 14 of these control 74.3 per cent of the developed water power. Five companies control over one-half of the total power and two over one-third of the water power. Forty-eight municipalities have 0.4 per cent of the water power and 0.6 per cent of the total power. Of the totals for the State as appearing on the summary table, nearly 12 per cent is power used in manufacturing. If this were omitted from the totals, the percentage of total public-service power controlled by the five largest corporations would be nearly 60 per cent, and of public-service water power by the two largest water-power companies 45 per cent.

North Carolina.—Two companies—the Southern Power Co. and the Carolina Power & Light Co.—control 75.1 per cent of the developed water power and 66.5 per cent of the total power. Eight corporations control 94 per cent of the water power and 14, 89.1 per cent of the total power. Forty-nine municipalities have 1 per cent of the water power and 5.5 per cent of the total power. Since the totals for the State contain a certain amount of power used in manufactures, the percentages of strictly public-service power controlled by the several corporations is greater than the above figures would indicate.

North Dakota.—Water-power development in this State is negligible. One concern, H. M. Byllesby & Co., controls 36.7 per cent of the total electric power in three stations, as compared with 22.3 per cent controlled by the United States Reclamation Service and certain municipalities in 12 stations.

Ohio.—Ohio shows no marked concentration of electric-power development, although 20 concerns control 77.8 per cent of the total in the State, and 7 of these have 67.1 per cent of the total developed water power. One hundred and fourteen municipalities own 0.9 per cent of the water power and 7.5 per cent of the total power.

Oklahoma.—Nine companies control 61.9 per cent of the total power. Water-power development in the State amounts to but little over 2 per cent of the total. Sixty-one municipalities have 20.4 per cent of the water power and 16.7 per cent of the total power.

Oregon.—E. W. Clark & Co. Management Corporation and the Crown-Willamette Paper Co. control 67.7 per cent of the water power and 65.7 of the total power in the State. Seven companies control 86.4 per cent of the water power and 82.5 per cent of the total power. Municipal plants control 3 per cent of the water power and 2.2 per cent of the total power.

Pennsylvania.—Fifteen corporations control 73 per cent of the total public-service power in the State, and six of these control 88.2 per cent of the water power. One concern, the Pennsylvania Water & Power Co., controls 70 per cent of the developed water power. Forty-one municipalities have 0.3 per cent of the water power and 1.6 per cent of the total power of the State.

Rhode Island.—As far as information is available, Stone & Webster control the entire amount of developed water power used in public-service operations. Four companies, the New York, New Haven & Hartford Railroad Co., the Narragansett Electric Lighting Co., the Massachusetts Lighting Cos., and Stone & Webster, control 98.3 per cent of the total public-service power in the State. There appear to be no municipal developments.

South Carolina.—One concern, the Southern Power Co., controls 56.3 per cent of the developed water power and 50 per cent of the total power. Twelve companies control 96.4 per cent of the water power and thirteen 92.3 per cent of the total power. The 21 municipal plants have no water power and but 1.7 per cent of the total power. As noted in the summary table for the

State, 9.6 per cent of the power included in the totals is used in manufacturing. The percentage of strictly public-service power controlled by the several corporations listed is therefore greater than the above percentages would indicate.

South Dakota.—The Homestake Mining Co. has 47.8 per cent of the total water power in the State. Three other companies control 43.1 per cent, making a total of 90.9 per cent for the four. The 17 municipal stations have no water power and but 5 per cent of the total power.

Tennessee.—Two corporations, the E. W. Clark Co. Management Corporation and the Chattanooga & Tennessee River Power Co., control 88.9 per cent of the developed water power and 62.5 per cent of the total power. Five companies control 98.3 per cent of the water power and nine companies 92.9 per cent of the total power. Twenty-nine municipal plants contain but one-third of 1 per cent of the water power and but 3.7 per cent of the total power.

Texas.—Three companies control 68.5 per cent of the water power, and two companies, Stone & Webster and the American Power & Light Co., control 53 per cent of the total power. Thirteen companies control 77 per cent of the total power. Twenty-one municipalities have 3.3 per cent of the water power and 3.8 per cent of the total power.

Utah.—One concern, the Utah Securities Corporation, controls 82.2 per cent of the developed water power and 84.3 per cent of the total power. Twenty-two municipalities have 7.4 per cent of the water power and 6 per cent of the total power.

Vermont.—Two public-service companies, the New England Power Co. of Maine and the American Gas Co., and one manufacturing concern, the International Paper Co., control 51.6 per cent of the total developed water power and 44.4 per cent of the total power. Fifteen companies control 90.7 per cent of the water power and 89.2 per cent of the total power. Thirteen municipalities have 4.2 per cent of the water power and 4.6 per cent of the total power. As noted for several other States, power used in manufacturing to the extent of 20 per cent of the total has been included. Were it not for this inclusion the percentages of control of public-service power by certain corporations would be considerably greater than would be indicated by the above percentages or those shown in the summary table for the State.

Virginia.—Two public-service corporations, the Virginia Railway & Power Co. and H. M. Byllesby & Co., and one manufacturing concern, the Riverside & Dan River Cotton Mills, control 56.4 per cent of the developed water power and 56.9 per cent of the total power. Fourteen companies control 85.3 per cent of the total power, and nine of these control 80.5 per cent of the water power. Fifteen municipal stations control 6.5 per cent of the water power and 6 per cent of the total power.

Washington.—Two concerns, Stone & Webster and the Washington Water Power Co., control 53.8 per cent of the water power and 54.7 per cent of the total power. Ten corporations control 78.6 per cent of the water power, and 12 control 77.5 per cent of the total power. Washington has a considerable municipal development, 12 cities and towns owning 16.5 per cent of the water power and 16 per cent of the total power in the State.

West Virginia.—Five companies control 97.3 per cent of the developed water power and one concern, the Union Carbide Co., 49.4 per cent. Fifteen companies control 85.1 per cent of the total power. Six municipalities have 1.3 per cent of the total power, but no water power.

Wisconsin.—74.6 per cent of the developed water power is distributed among 18 corporations. The largest percentages in control of single corporations are 11.5 per cent by H. M. Byllesby & Co. and 10.7 per cent by the Wisconsin River Power Co. Similarly 71.2 per cent of the total developed power of the State is distributed among 19 corporations, the North American Co. having the largest individual percentage of 25.5 per cent. Eighty-five municipalities have 1.4 per cent of the water power and 4.1 per cent of the total power. The totals for this State contain a considerable amount—19 per cent of the total—of power used in manufacture, hence the percentages of strictly public-service power controlled by the several companies is greater than the above percentage would indicate.

Wyoming.—Water-power development is of minor importance in Wyoming, the total amounting to only 2,544 horsepower. The total electric power installation from all sources is less than 18,000 horsepower. Two corporations control 44.2 per cent of this, and nine 77.7 per cent. The United States Army and municipal stations utilize 34 per cent of the water power and 7.1 per cent of the total power.

United States.—At the end of the summary tables is given a list of the 87 corporations each of which, according to the data given in the detailed sheets, controls not less than 30,000 horsepower of primary power. Two companies contained in the list, the International Paper Co. and the Union Carbide Co., are engaged in manufacturing. The remaining 85 are public-service corporations. These 87 corporations control 3,521,423 water horsepower and 6,275,092 steam and gas horsepower, a total of 9,796,515 horsepower, or 65.9 per cent of the total listed for the United States. If the two manufacturing concerns are eliminated and the amount of manufacturing power contained in the tables is subtracted from the total, the 85 concerns remaining control 68.6 per cent of the total public-service power in the United States. Thirty-five of the 85 control one-half of this total; 16 control one-third and 10 control one-fourth. Of the 85 corporations shown in the table 59 have water-power developments and control 65.9 per cent of the total water power listed. If the two manufacturing concerns are eliminated from this number and the water power used in manufacturing is subtracted from the total water power, the remaining 57 concerns control 72.3 per cent of the total water power in the United States used in public-service operations. Of these 57 concerns the following 18—

1. Stone & Webster.
2. Montana Power Co.
3. Utah Securities Corporation.
4. E. W. Clark & Co. Management Corporation.
5. Southern Power Co.
6. Hydraulic Co. of Niagara Falls.
7. Pacific Gas & Electric Co.
8. Pennsylvania Water & Power Co.
9. Pacific Light & Power Corporation.
10. H. M. Byllesby & Co.
11. The Niagara Falls Power Co.
12. Washington Water Power Co.
13. Georgia Railway Light & Power Co.
14. New England Power Co. of Maine.
15. Western Power Co.
16. Alabama Traction, Light & Power Co.
17. Commonwealth Power, Railway & Light Co.
18. United Railways Investment Co.

together control 2,356,521 water horsepower, more than one-half (51.1 per cent) of the total water power used in public-service operations in the United States. Of the 18 corporations named, the first 9 control more than one-third (33.7 per cent) of the total, and the first 6 more than one-fourth (25.3 per cent).

Stone & Webster, through their management of operating companies, control more water power and more total power than any other corporation, having under their direct management 340,211 water horsepower and 529,854 total horsepower.

Twenty-nine of the 87 companies listed control operating plants in more than one State. Three of these, H. M. Byllesby & Co., the Doherty Operating Co., and Stone & Webster, operate in 17, 14, and 13 States respectively. The Middle West Utilities Co. has the largest number of stations under its control—118 in 9 different States.

Attention is again called to the fact that the character of control which has been discussed with reference to the several States is definite and complete. It consists either in actual ownership of properties, in majority stock ownership, in lease or in direct management. The relation between the various operating companies and the controlling or holding companies is best shown upon the organization charts, presented in Part II of this report. The figures of amounts of power controlled as given upon these charts do not agree in all respects with the data given in the preceding pages. The detailed figures for the several States had not been completed when the organization charts were prepared and it was necessary to secure such information as could be obtained from corporation manuals without the opportunity of checking the information so secured against detailed data. Wherever discrepancies are found, the data contained in the preceding pages should be given preference.

INTERRELATIONSHIPS THROUGH COMMON DIRECTORS.

A study of the interrelation of the various public-utility electric corporations with each other through common directors or principal officers leads one into an almost endless maze of interconnections. It is extremely difficult to correlate the mass of information and to determine in many instances whether a particular company has the closer association with one or another group of interests. In studying the extent of such interrelationships the chief source of information has been Moody's Manual of Corporations, 1914. The 1915 edition was not available at a sufficiently early date to permit of its use in this line of investigation. The relations shown, therefore, unless otherwise noted, are those existing in 1914. It has not been possible, of course, even had it been desirable, to verify the data as presented in the several corporation manuals. The standing which they have and the presumption that all the information which they contain has been furnished by the corporations the activities of which are described would seem to make further verification unnecessary. The accuracy of the data herein presented is dependent, therefore, upon the accuracy of the sources from which they have been derived.

In Table No. 1, Part III, is given in alphabetical order a list of some 1,500 corporations engaged in the power business under each of which is listed, also in alphabetical order, both the power corporations and the banking corporations with which it is affiliated through principal officers or common directors. The list gives also the total number of principal officers and directors in each corporation and the number common to such corporations and every other affiliated corporation. The principal officers considered are the president, vice president, secretary, and treasurer, but such officers have not been counted a second time if they serve also as directors. There is also given in Table No. 2, Part III, a list in alphabetical order of 2,172 directors and principal officers common to two or more of the corporations studied, and under each director or principal officer a list both of the power corporations and of the banking corporations in which he serves. These two lists serve as the fundamental data for this section of the report.

In contradistinction to the corporate relationships discussed in preceding pages of this report, where only ownership, lease, and management were considered, and where the connection was definite and direct, the interrelationships which are evidenced by common directors are indefinite and the extent of control can not be quantitatively determined, except in those instances where a majority of the directorate is common to two corporations. Where the preceding data show accomplished control, these data show potential control, a marked tendency toward an association or community of interest, particularly between the principal holding companies, that can not be viewed without concern.

From the general data just described have been prepared three charts, Nos. 1, 2, and 3, of Part III. The first chart shows the interrelations, through common directors or principal officers, that exist between 195 of the principal electric power holding companies. The second chart shows the relationship, through common directors, between 158 of the electric power holding corporations, shown on chart 1, and 147 of the banking corporations, shown on chart 3. The third chart shows the interrelation, through common directors, of 174 banking corporations of New York, Boston, Philadelphia, and other cities, including all except 16 of those appearing on plate 2.

Each of the companies shown upon the first chart is either directly or indirectly connected with every other company shown thereon. From this chart have been prepared the diagrams, 16 in number, which show graphically the relations between certain selected holding companies and other holding companies with which the first appears to have the closest relation. There is a certain amount of duplication of companies between these diagrams, since it has often been found desirable to show the relation which exists between a minor holding company and more than one of the major holding companies. Such duplications of this nature as exist have been indicated in the reference table preceding the diagram.

Each of the 16 diagrams is preceded by a prefacing sheet explaining the relations shown upon the diagram. To these sheets and the diagrams themselves, as well as to the general statement preceding all the diagrams, reference should be made for detailed information. Upon the several prefacing sheets is given a table showing the authorized and outstanding stock and the outstanding bonds of the individual concerns listed, and the amount of developed water power, steam and gas power (all shown under "Steam power"), and total power controlled.

The capitalization appearing opposite the names of the individual companies is the amount authorized or outstanding of the parent company and does not include the capitalization of any of the subsidiaries which

it may control. Even as thus taken there is doubtless a considerable, although unknown, duplication due to inter-company holdings of securities. In combining the individual companies into the groups appearing on the several charts there may be a still further duplication of capitalization due to the fact that two or more individual companies listed in a table may be so related through stock ownership that the capitalization of one is a duplication in whole or in part of the capitalization of another. Since it is not possible to determine the amount of duplicated capital either in the individual totals or in the group totals, such group totals are merely the numerical sums of the items appearing in the several tables and can not be taken as representing the net capitalization of the companies appearing in the table and upon the accompanying diagram.

The figures for developed power are taken from the detailed power data by States as given in Part II and are for the year 1915. As stated elsewhere in this report the totals which are here given for any individual company or combination of companies may differ from the totals appearing upon the organization charts in Part III. It was necessary to prepare the tables for the organization charts before the detailed power census for 1915 had been completed, and such information was used as could be secured from the corporation manuals. The information thus obtained was incomplete and in some instances incorrect. In case of conflict, therefore, the data shown upon the prefacing sheets to the interconnecting directorates charts should be given preference over that appearing upon the organization charts. Differences may also appear between the totals shown in connection with these charts and the totals appearing upon the tables in Part II which give the amount of power controlled by certain corporations. This is due to the fact that in the charts of Part III subsidiary concerns are shown as well as the main holding companies, and the power under the control of the main holding company does not always contain the power controlled by its subsidiaries if such subsidiaries appear independently in the tables.

There are no duplications in the data of developed power within any of the individual companies appearing upon the interconnecting directorates diagrams. Such duplications as exist between the several companies within any one group are shown upon the prefacing sheet accompanying the chart, and the total there given, less the duplications shown, gives the actual amount under the combined control of the several companies appearing upon the chart.

The character of the control over such developed power by the individual companies included in the several groups is direct and complete and is exercised either through ownership of the properties, majority ownership of stock, lease, or direct management. What may be the character of the group control, or whether such control actually exists, can not be determined. The only evidence available shows merely an interrelation between certain interests through common officers or through the medium of common representation upon boards of directors. It is scarcely to be supposed, however, that such representation is devoid of significance and that no influence exists because its amount can not be quantitatively determined.

The individual public-service companies which make up the 16 groups control 2,226,000 water horsepower, or 48.3 per cent of total public-service water power in the United States, as indicated by the special census made for this report. These companies also control 4,160,000 steam horsepower, or 44.5 per cent of the total used in public service operations, giving a combined total of 6,386,000 horsepower, or 45 per cent of all public-service power in the United States.

The companies which appear at the left of each chart and which are given below are the companies, the interrelations of which with other companies have been studied, and with which the others as shown upon the several charts appear to be most closely related. As a means of distinguishing the several groups the names of the principal companies have been applied to the groups in which they appear.

A brief résumé of the total amounts of power controlled by the individual companies within the several groups follows. Details may be found upon the charts and in the prefacing sheets immediately preceding.

W. S. Barstow & Co.—Plate 4 shows the interrelations through common directors or principal officers of W. S. Barstow & Co., the General Gas & Electric Co., and six other public-service corporations. The individual companies appearing in this group control 34,775 water horsepower and 121,862 steam horsepower, a total of 156,637 horsepower, slightly more than 1 per cent of the total public-service power in the United States in 1915.

William P. Bonbright & Co.—Plate 5 shows the connections between Wm. P. Bonbright & Co. and 33 other companies. The individual companies shown in this group together control 885,725 water horsepower, or 19.2 per cent of the total used in public-service operations in the United States; and 655,613 steam horsepower, or 7 per cent of the total of such power in public-service use; making an aggregate of 1,541,338 horsepower, or 11 per cent of the total in the United States in 1915.

H. M. Byllesby & Co.—Plate 6 shows the connection through common directors or principal officers of H. M. Byllesby & Co., the Northern States Power Co., the Standard Gas & Electric Co., the Louisville Gas & Electric Co., and the Mississippi Valley Gas & Electric Co. with each other and with 16 other public-service corporations. The aggregate amount of power controlled by the individual companies shown within this group is 345,692 water horsepower and 469,386 steam horsepower, a total of 815,078 horsepower, or 7.5 per cent, 5 per cent, and 5.8 per cent, respectively, of the water power, steam power, and total power in the United States employed in public-service operations.

E. W. Clark & Co. Management Corporation.—Plate 7 shows the relations through common directors or principal officers of E. W. Clark & Co. Management Corporation, the Tennessee Railway, Light & Power Co., Commonwealth Power, Railway & Light Co., Cumberland County Power & Light Co., and the East St. Louis & Suburban Co. to 38 other corporations. With the exception of the International Paper Co., all the companies included in this group are public-service corporations. If the amount of power controlled by the International Paper Co. is subtracted from the aggregate amount controlled by all the individual corporations shown, the remainder amounts to 843,049 water horsepower and 1,266,183 steam horsepower, a total of 2,109,232 horsepower, or 18.3 per cent, 13.5 per cent, and 15.1 per cent, respectively, of the total

water power, steam power, and combined power in the United States operated by public-service corporations.

Doherty organizations.—Plate 8 shows the connections of the Electric Bond Deposit Co., the Doherty Operating Co., the Doherty Securities Co., the Gas & Electric Securities Co., and the Cities Service Co. with each other and with 15 other corporations. Individual concerns in this group control an aggregate of 271,752 water horsepower and 552,417 steam horsepower, a total of 824,169 horsepower, or 5.9 per cent of the total of each class of power used in public-service operations.

Electric Bond & Share Co.—Plate 9 shows the relations through common directors or principal officers of the Electric Bond & Share Co. to 41 other corporations. This company is controlled by the General Electric Co. through the ownership of the entire common stock. The aggregate amount of public-service power controlled by the individual concerns shown within this group is 928,486 water horsepower and 1,300,370 steam horsepower, a total of 2,228,856 horsepower, or 20.1 per cent, 13.9 per cent, and 16 per cent, respectively, of the total amount of each class of power employed in public-service uses.

Electric Securities Corporation.—The entire common stock of this company also is owned by the General Electric Co. Plate No. 10 shows the relation between the Electric Securities Corporation and 20 affiliated companies. The amount of power controlled by the individual concerns shown upon this chart aggregates 497,533 water horsepower and 819,045 steam horsepower, a total of 1,316,578 horsepower, or 10.8 per cent, 8.8 per cent, and 9.4 per cent, respectively, of the total amounts in the United States in public-service use.

General Electric Co.—Plate 13 shows the direct connections through common directors or principal officers between the General Electric Co. and 29 affiliated corporations. If there is subtracted from the aggregate controlled by the individual corporations shown upon the chart the amount under the control of the International Paper Co., the connection of which with the General Electric Co. is shown upon the chart, the balance remaining will amount to 703,306 water horsepower and 1,298,514 steam horsepower, a total of 2,001,820 horsepower, or 15.2 per cent, 13.9 per cent, and 14.3 per cent of the respective totals for the United States developed for public-service use.

The number of concerns with which the General Electric Co. is affiliated through common directors or principal officers, either directly or through the medium of the Electrical Securities Corporation and the Electric Bond & Share Co., both of which the General Electric controls through the ownership of the entire common stock, was too great to be shown upon a single chart in the manner employed in this report. Accordingly, separate charts were prepared for the General Electric Co. and its two owned subsidiaries. If the three groups are combined without duplication and the amount controlled by the International Paper Co. is eliminated, the balance, representing the aggregate amount controlled by the individual concerns shown upon plates 9, 10, and 13, the General Electric groups, amounts to 1,290,466 water horsepower and 1,678,658 steam horsepower, a total of 2,978,124 horsepower, or 28 per cent, 18 per cent, and 21.3 per cent, respectively, of the total public-service power in the several classes in the United States.

Electrical Utilities Co.—Plate 11 shows the relationship between the Electrical Utilities Corporation and 35 other corporations. The aggregate amount of power controlled by the individual concerns shown within this group is 867,615 water horsepower and 891,224 steam horsepower, a total of 1,758,839 horsepower, or 18.8 per cent, 9.5 per cent, and 12.6 per cent, respectively, of the totals in each class used in public-service operations.

Federal Utilities (Inc.).—Plate 12 shows the connections through common directors or principal officers of the Federal Utilities (Inc.), Electric Investment Corporation, Republic Railway & Light Co., American Gas & Electric Co., American Power & Light Co., Central States Electric Corporation, and Federal Light & Traction Co. with each other and with 58 other concerns. If the amount of power employed in industrial use is eliminated, the balance controlled by the individual concerns appearing on this chart aggregates 914,646 water horsepower and 1,845,496 steam horsepower, a total of 2,760,142 horsepower, or 19.8 per cent of the total in each class of power employed in public-service operations.

Middle West Utilities Co.—Plate 14 shows the connections through common directors or principal officers of the Middle West Utilities Co., Public Service Corporation of Northern Illinois, and the United Light & Railways Co. with each other and with 25 other corporations. The amount of power controlled by the individual companies appearing on this chart aggregates 480,257 water horsepower and 959,685 steam horsepower, a total of 1,439,942 horsepower, or 10.3 per cent of the totals of the public-service power in each class in the United States.

North American Co.—Plate 15 shows the connections through common directors or principal officers between the North American Co. and its subsidiaries, the Detroit Edison Co., the Electric Co. of Missouri, and the Wisconsin Edison Co., with each other and with 14 other corporations. The aggregate amount of power controlled by the individual concerns shown upon this chart is 499,365 water horsepower and 748,906 steam horsepower, a total of 1,248,271 horsepower, or 10.8 per cent, 8 per cent, and 8.9 per cent, respectively, of the totals for the United States in public-service use.

Stone & Webster Management Association.—Plate 16 shows the relations through directors or principal officers of the Stone & Webster Management Association, the Electric Corporation, and 45 other corporations. The individual concerns shown upon this sheet control an aggregate of 1,353,886 water horsepower and 920,549 steam horsepower, a total of 2,274,435 horsepower, or 29.4 per cent, 9.8 per cent, and 16.3 per cent, respectively, of the totals of each class employed in public-service operations.

United Equities Corporation.—Plate 17 shows the relation through common directors and principal officers which exist between the United Equities Corporation, the United Gas & Electric Corporation, and 47 other concerns. The aggregate amount of power, after deducting industrial power, controlled by the individual concerns shown within this group is 956,474 water horsepower and 1,355,907 steam horsepower, a total of 2,312,381 horsepower, or 20.8 per cent, 14.5 per cent, and 16.6 per cent, respectively, of the totals for the United States as developed for public-service use.

Westinghouse Electric & Manufacturing Co.—Plate 18 shows the relations through common directors and principal officers of the Westinghouse Electric & Man-

ufacturing Co. and the Electric Properties Corporation with each other and with 38 other companies. The aggregate public-service power controlled by the individual concerns appearing within this group is 405,705 water horsepower and 1,989,432 steam power, a total of 2,395,137 horsepower, or 8.8 per cent, 21.3 per cent, and 17.2 per cent, respectively, of the totals for the United States within each class used in public-service operations.

J. G. White & Co. (Inc.).—Plate 19 shows the relations between J. G. White & Co. (Inc.) and J. G. White Management Corporation with 45 other public-service corporations. The total power controlled by the individual concerns shown in this group is 816,683 water horsepower and 1,599,324 steam horsepower, a total of 2,416,007 horsepower, or 17.7 per cent, 17.1 per cent, and 17.3 per cent, respectively, of the totals of public-service power in the United States.

Table No. 3, Part III, gives the names of the 158 corporations which appear upon the several plates to which reference has been made. From this table it will be possible to locate any of the concerns named and to determine the duplication of names on the different charts. As stated earlier, it is not possible to determine the amount of duplication of capitalization, either as between individual concerns or for the totals in any one group, since sufficiently detailed information is not available. The totals of power controlled, however, are taken entirely from the detailed sheets for the several States as given in Part II, and it has been possible to eliminate all duplications either within the individual concerns or within the several groups.

RELATION BETWEEN BANKING CORPORATIONS AND ELECTRIC-POWER HOLDING COMPANIES.

On plates 78 to 108, in Part III, are shown the relations which exist between certain banking corporations, chiefly in New York, Boston, and Philadelphia, with certain electric-power holding corporations, due to the fact that directors in the banking corporations are also directors or principal officers in the electric-power holding companies. No attempt has been made to determine the amount of power under the control of the groups of power corporations with which the several banking corporations are affiliated. The plates are inserted merely to indicate the extent to which certain banking corporations are interested in electric-power corporations, or vice versa.

CONTROL OF UNDEVELOPED WATER POWER.

In connection with the other studies made for this report considerable information was collected concerning the amount of undeveloped power reported to be in the ownership or control of public-service corporations. Time has not been available for verifying the data or for determining whether or to what degree such undeveloped water powers are claimed by those interests which control the majority of the developed powers. The data show, however, that 120 out of about 1,500 public-service corporations, the developments of which have been listed in this report, claim to own or control a total of 3,683,000 undeveloped water horsepower, or 80 per cent of the total water power at present developed by public-service corporations.

Whether or not these figures are wholly reliable, it may be pertinent to remark that those who lay claim to such extensive ownership or control of undeveloped power sites are hardly in a position to contend that any legislation or lack of legislation or any administrative policies of the executive departments of the Government should be held responsible for the stagnation in water-power development which they allege exists. The fact, if it is a fact, that a comparatively few corporations hold unused nearly 4,000,000 water horsepower would of itself furnish sufficient explanation.

Ownership or control of undeveloped water powers, even to the extent claimed by these corporations, is not the most effective method of securing control of the business. If, as is probably the case, the sites owned are those most immediately valuable and best suited for early development, then those who own or control them hold the initial advantage; but the chief factor in control is not so much the ownership of undeveloped power sites as it is the domination of the market. An enterprise once started and with its market established occupies a position of such distinct advantage that it can finance and extend its developments upon terms that a new and untried enterprise can not secure. The proportion of entirely new enterprises will, for this reason, grow progressively less. This tendency is being further augmented by the attitude of public-utility commissions which are increasingly manifesting a disposition to favor the extension of established enterprises into new territory rather than the development of such territory by new and competitive enterprises. No other State has had such a remarkable water-power development as California within the last few years. Hundreds of thousands of horsepower have been developed and hundreds of millions of dollars have been invested in the electric-power business. Yet a most careful investigation could not discover that a single new public-utility enterprise involving the development of water power had been started in that State within the last six years. The remarkable development which has taken place consists entirely in extensions to the business of concerns already in the field. Great concentration of power development under present conditions will depend only in a minor degree upon control of undeveloped sources of power; the determining factors will be control of the markets and control of the sources of credit.

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64TH CONGRESS
1st Session

SENATE

DOCUMENT
No. 316

ELECTRIC POWER DEVELOPMENT IN THE UNITED STATES

LETTER

FROM THE

SECRETARY OF AGRICULTURE

TRANSMITTING

A REPORT, IN RESPONSE TO A SENATE RESOLUTION OF FEBRUARY 13, 1915, AS TO THE OWNERSHIP AND CONTROL OF THE WATER-POWER SITES IN THE UNITED STATES

IN THREE PARTS

PART II

JANUARY 20, 1916.—Referred to the Committee on Printing

WASHINGTON
GOVERNMENT PRINTING OFFICE
1916

REPORTED BY MR. FLETCHER.

IN THE SENATE OF THE UNITED STATES,
February 8, 1916.

Resolved, That the report entitled Electric power development in the United States and concentration in its ownership and control, transmitted to the Senate by the Secretary of Agriculture on January 20, 1916, in response to Senate resolution No. 544, Sixty-third Congress, be printed as a Senate document, together with accompanying tables and illustrations: *Provided*, That Part I of said report be first printed and furnished to the Senate at the earliest practicable day.

Attest:

JAMES M. BAKER, *Secretary.*

LETTERS OF TRANSMITTAL.

DEPARTMENT OF AGRICULTURE,
Washington, January 17, 1916.

SIR: In accordance with the provisions of Senate resolution No. 544, passed by the Sixty-third Congress, third session, I have the honor to transmit herewith the information in my possession as to the ownership and control of the water-power sites in the United States; showing what proportion of such water-power sites is in private ownership and by what companies and corporations such sites in private ownership are owned and controlled; what horsepower has been developed and what proportion of it is owned and controlled by such private companies and corporations; and facts bearing upon the question as to the existence of a monopoly in the ownership and control of hydroelectric power in the United States.

Respectfully,

D. F. HOUSTON, *Secretary.*

The PRESIDENT OF THE SENATE.

DEPARTMENT OF AGRICULTURE,
FOREST SERVICE,
Washington, December 21, 1915.

The SECRETARY OF AGRICULTURE.

DEAR MR. SECRETARY: Senate resolution No. 544, passed by the Sixty-third Congress, third session, directed that the Secretary of Agriculture furnish to the Senate certain information in regard to the water-power industry. The resolution reads as follows:

Resolved, That the Secretary of Agriculture be, and he is hereby, directed to furnish the Senate with all information in his possession as to the ownership and control of the water-power sites in the United States, showing what proportion of such water-power sites is in private ownership and by what companies and corporations such sites in private ownership are owned and controlled, what horsepower has been developed, and what proportion of it is owned and controlled by such private companies and corporations, and any facts bearing upon the question as to the existence of a monopoly in the ownership and control of hydroelectric power in the United States.

The work of preparing the material called for in this resolution was assigned to Mr. O. C. Merrill, chief engineer of the Forest Service. The information has been brought together by Mr. Merrill in the form of a report which contains, in addition to the text, the data upon which the various conclusions are based. There are, further, various charts and diagrams which illustrate the results of the study in graphic form.

I recommend that this report be transmitted to the Senate.

Very sincerely, yours,

H. S. GRAVES, *Forester.*

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Idaho
Montana
Nebraska
Nevada
New Mexico
North Dakota
Oregon
South Dakota
Utah
Washington
Wyoming
In folder in back of Part II.

LETTER OF SUBMITTAL.

DEPARTMENT OF AGRICULTURE,
FOREST SERVICE,
Washington, December 20, 1915.

SIR: I submit to you herewith a report upon Electric Power Development in the United States and the Movement Toward Concentration of Control, prepared in response to Senate resolution 544, Sixty-third Congress, third session.

This report has been made up from data which have been accumulating for several years in the office of the chief engineer, supplemented by investigations made in the field by district engineers of the Forest Service and by correspondence with officials of power companies, to whom have been submitted for verification the greater part of the data on power development in 1915 as contained in the report.

The report is presented in three parts: Part I, containing the text of the report; Part II, the plates and tables concerning primary power, power generated, and financial statistics, the detailed data of power developments in 1915, the summary tables showing the concentration in control of this power, and maps of fourteen of the public-land States showing the location of all power plants, main transmission systems, and national-forest areas; and Part III, which contains the data concerning the interrelations between public-service holding companies and the relation of these companies to certain banking corporations, diagrams showing the successive steps by which certain holding companies have established their control over operating companies, and charts indicating the relation through directors or principal officers of certain public-utility holding companies with each other.

In submitting this report I wish to express my appreciation of the invaluable assistance given by Mr. T. W. Norcross, assistant chief engineer, who, together with Mr. Frank A. Law, of the Portland office, collected the data and prepared the tables and charts in Part III of the report; by Mr. J. P. Martin, district engineer of the Ogden office, who made the special census of electric power development for 1915; and by Mr. Ralph R. Randell, assistant engineer, who aided in the preparation of all parts of the report, and especially in the computation of the tables and plates of Part II.

Respectfully,

O. C. MERRILL,
Chief Engineer.

H. S. GRAVES, *Forester.*

ERRATA—PART I.

Page 25—
Scale of Plate IV should be 50, 100, 150, etc., instead of 5, 10, 15, etc., as printed.
Page 26—
Legend of Plate V should be "Manufactures," "Central Stations," "Electric Railways," instead of "1912," "1907," "1902," as printed.

The following changes are made necessary on account of a duplication of 25,000 horsepower in the figures as originally reported for Minnesota. Totals for the State and for the United States will be reduced by the above amount and percentages as appearing on pages 56, 58, 59, 60, 61, and 62 will be changed by about one-tenth of 1 per cent as follows:
Page 56—
Minnesota. Line 1, for 89.9 read 88.8; line 2, for 82.2 read 81.1; line 3, for 71.9 read 68.9; line 4, for 65.4 read 63.1; line 5, for "one-half of 1" read 0.6; line 6, for 5.7 read 6.0.
Page 58—
United States. Line 8, for 3,521,423 read 3,496,423; line 10, for 9,796,515 read 9,771,515, and for 65.9 read 65.8; line 15, for 68.6 read 68.5; line 20, for 65.9 read 65.7; line 24, for 72.3 read 72.2.
Page 59—
Line 2, for 51.1 read 51.4; line 5, for 33.7 read 33.9; line 6, for 25.3 read 25.4.
Page 60—
William P. Bonbright & Co. Line 5, for 19.2 read 19.3.
E. W. Clark & Co. Management Corporation. Line 15, for 18.3 read 18.4.
Page 61—
Electric Bond & Share Co. Line 10, for 20.1 read 20.2.
General Electric Company. Line 11, for 15.2 read 15.3; line 12, for 14.3 read 14.4; line 29, for 28 read 28.1, and for 21.3 read 21.4.
Electrical Utilities Co. Line 6, for 18.8 read 18.9.
Federal Utilities (Inc.). Line 12, for 19.8 in each class read water power, 19.9 per cent, steam power 19.8 per cent, and total power 19.8 per cent.
Middle West Utilities Co. Line 9, for 19.8 per cent in each class read water power, 10.5 per cent; steam power, 10.3 per cent; total power, 10.3 per cent.
North American Co. Line 9, for 10.8 read 10.9; line 11, for 8.9 read 9.0.
Stone & Webster Management Association. Line 8, for 29.4 read 29.5.
United Equities Corporation. Line 9, for 20.8 read 20.9.
Page 62—
J. H. White & Co. (Inc.). Line 7, for 17.7 read 17.8.

REPORT ON ELECTRIC POWER DEVELOPMENT IN THE UNITED STATES AND CONCENTRATION IN ITS OWNERSHIP AND CONTROL.

Part I. Text of report.
Part II. Potential water power resources of the United States; Comparative statistics of primary power, power generated, and finances for 1902, 1907, and 1912; Electric power census for 1915, and statistics of concentration of control; Tables, maps, and diagrams.
Part III. Consolidation of electric power holding companies, and interrelations through common directors or principal officers of such companies with each other and with certain banking corporations; Tables and charts.

PART II.

POTENTIAL WATER POWER RESOURCES OF THE UNITED STATES—COMPARATIVE STATISTICS OF PRIMARY POWER, POWER GENERATED, AND FINANCES FOR 1902, 1907, AND 1912—ELECTRIC POWER CENSUS FOR 1915—STATISTICS OF CONCENTRATION OF CONTROL—TABLES, MAPS, AND DIAGRAMS.

TABLE 1.—LAND OWNED BY UNITED STATES IN STATES HAVING GOVERNMENT LAND SET APART AS NATIONAL FORESTS, UNAPPROPRIATED AND UNRESERVED LAND, AND OTHER LAND OF THE UNITED STATES RESERVED FOR DEFINITE USES JUNE 30, 1914.

1	2	3	4	5	6	7	8	9	10	11
State.	Total land area.	Unappropriated and unreserved land.	National forests.	National parks.	National monuments.	Military reservations.	Game preserves.	Bird preserves.	Carey Act withdrawals.	Power site reserves.
	Acres.	*Acres.a*	*Acres.b*	*Acres.c*	*Acres.c*	*Acres.*	*Acres.*	*Acres.c*	*Acres.d*	*Acres.c e*
Arizona	72,838,400	36,958,749	12,499,485	480	*f* 835,245	65,549	*g* 1,492,928	(*h*)		190,431
Arkansas	33,616,000	368,972	1,208,384	912		1,114		(*h*)		17,704
California	99,617,280	20,902,752	20,339,327	883,755	*f i* 9,576	6,302	*f* 884,050	(*h*)		222,769
Colorado	66,341,120	18,890,441	13,402,481	48,966	*f* 14,183	1,933	*f* 13,883		912,474	270,390
Florida	35,111,040	307,924	299,140			16,193		(*h*)		
Idaho	53,346,560	16,342,781	17,712,666	23,000		7,176	*f* 23,000	(*h*)	1,608,251	272,759
Kansas	52,335,360	102,200	143,143			26,240				
Michigan	36,787,200	79,316	84,620			3,706		(*h*)		
Minnesota	51,749,120	1,082,199	987,377			2,428				11,020
Montana	93,568,640	22,237,660	16,272,230	1,113,181	*i* 165	63,152	1,000,202	(*h*)	269,981	157,041
Nebraska	49,157,120	270,162	198,056			23,789		15,254		761
Nevada	70,285,440	55,502,439	5,299,319					248	596,370	19,087
New Mexico	78,401,920	30,104,843	8,592,660		*f* 21,109	140,710		(*h*)	17,565	13,577
North Dakota	44,917,120	672,949	6,894	780		899	*k* 789	(*h*)		
Oklahoma	44,424,960	42,353	61,480	818		77,367	*g* 57,120			
Oregon	61,188,480	15,969,846	13,227,412	159,360	*f* 480	3,939	159,360	(*h*)	563,089	266,710
South Dakota	49,195,520	3,573,269	1,134,133	10,522	*f* 1,280	35,403	10,522	(*h*)		
Utah	52,579,760	33,756,502	7,472,694		18,740	28,648	*f* 15,840	(*h*)	464,873	378,147
Washington	42,775,040	1,799,774	9,828,826	207,360	*f* 608,480	21,447	815,810	(*h*)		97,537
Wyoming	62,460,160	31,553,423	8,413,846	*l* 1,915,520	1,362	68,739	1,917,600	(*h*)	1,464,650	73,564
Total	1,150,696,240	290,527,554	137,184,173	4,364,684	*f* 1,510,620	595,034	6,391,125	(*h*)	5,897,253	1,991,497

a From Commissioner of Land Office's Report 1914, pp. 76 to 98.
b Includes certain National Forest land which may be entered under act of June 11, 1906, and also includes over 1,500,000 acres in process of elimination from National Forests.
c Figures taken from Secretary of Interior's Annual Report, 1914.
d From Commissioner of General Land Office's Annual Report, 1914, p. 57. Considered as sum of segregations under Carey Act and withdrawals under act of March 15, 1910.
e A considerable portion of the area reserved for power sites is also under withdrawal as a part of a National Forest and listed in column 4.
f Under jurisdiction of Secretary of Agriculture and included in National Forests as follows: Arizona, 807,040; California, 7,200; Colorado, 300; New Mexico, 160; Oregon, 480; South Dakota, 1,280; Washington, 608,480; total, 1,424,940 acres.
g Under jurisdiction of Secretary of Agriculture and included in National Forests.
h Unknown—Included in data under other designations.
i Under jurisdiction of Secretary of War; Montana, 5; California, 1.
j Under jurisdiction of Secretary of the Interior as national monuments.
k Under jurisdiction of Secretary of the Interior as national parks.
l Does not include about 72,700 acres water surface.

TABLE 1.—LAND OWNED BY UNITED STATES IN STATES HAVING GOVERNMENT LAND SET APART AS NATIONAL FORESTS, UNAPPROPRIATED AND UNRESERVED LAND, AND OTHER LAND OF THE UNITED STATES RESERVED FOR DEFINITE USES JUNE 30, 1914—Continued.

State.	12	13	14	15	16	17	18	19	20	21
								Reclamation withdrawals.		
	Coal land withdrawals.	Oil land withdrawals.	Phosphate land withdrawals.	Potash land withdrawals.	Mineral land reserves.	Public water reserves.	Reservoir reserves.	On land reserved as National Forest.	Outside National Forest boundaries.	Total of cols. 19 and 20.
	Acres.a b c	*Acres.a b*	*Acres.a b*	*Acres.a b*	*Acres.a*	*Acres.a*	*Acres.d*	*Acres.*	*Acres.e*	*Acres.e*
Arizona	118,718	230,400			8,507	1,200	23,040	295,140	1,548,259	1,843,399
Arkansas										
California	17,764	1,410,444		94,087		43,524		127,202	1,945,242	2,072,444
Colorado	4,746,663	87,474				480		36,837	632,518	669,355
Florida			120,377							
Idaho	338,152		1,001,276					67,343	947,353	1,014,696
Kansas									34	34
Michigan										
Minnesota										
Montana	14,203,365		130,215				15,640	52,933	1,064,583	1,117,516
Nebraska									324,611	324,611
Nevada	85,853			1 1,582				6,157	2,745,718	2,751,875
New Mexico	5,549,883					1,440		4,740	260,264	265,004
North Dakota	15,202,533						1,569		74,440	74,440
Oklahoma										
Oregon	26,561					2,500	10,619	90,050	876,471	966,521
South Dakota							8,542		245,620	245,620
Utah	5,988,064	c 1,952,326	36,193			32,707		56,375	197,698	254,073
Washington	1,380,928						35,943	84,608	1,487,535	1,572,143
Wyoming	2,951,156	522,395	1,533,988			81,911		77,642	643,088	720,730
Total	50,607,920	4,203,039	2,842,049	225,669	8,507	163,762	95,353	899,027	12,993,434	13,892,461

a Figures taken from Secretary of Interior's Annual Report, 1914.
b Covers both Government and alienated land within limits of withdrawals.
c Open to surface entry under homestead, desert-land, and Carey acts, State selections, and isolated tracts.
d Furnished by Geological Survey.
e The areas given for land under reclamation withdrawal that lies outside of National Forest boundaries include private land within the boundaries of the withdrawal and may also include land reserved for other purposes, e. g., withdrawals under the act of June 25, 1910. It is also possible that some of the land designated "Unappropriated and unreserved land" is under reclamation withdrawal. Sixteen per cent of the land under reclamation withdrawal that lies within the exterior boundaries of the National Forest does not belong to the United States, therefore it is very possible that the figures given in column 20 for withdrawn land outside National Forest boundaries are at least 16 per cent too large, and the areas in column 21 are also too great. The total would then be 11,813,512 acres instead of 13,892,461.

TABLE 1.—LAND OWNED BY UNITED STATES IN STATES HAVING GOVERNMENT LAND SET APART AS NATIONAL FORESTS, UNAPPROPRIATED AND UNRESERVED LAND, AND OTHER LAND OF THE UNITED STATES RESERVED FOR DEFINITE USES JUNE 30, 1914—Continued.

State.	22	23	24	25	26	27	28	29	30	31	32
	Total area to which title of Unites States is unqualified.				Relation of unappropriated and unreserved land (col. 3) to total land area.[a]	Relation of National Forest area (col. 4) to total land area.[c]	Relation of areas of national parks, monuments, and military reservations to total land area.[d e]	Relation of areas withdrawn for reclamation purposes to total land area.[f]		Area withdrawn for power sites, coal, oil, phosphate, potash, mineral, public water, and reservoirs.[g h]	
	Sum of cols. 3, 4, 5, 6 (in part), 7, 11, 13, (except Utah), 14, 15, 16, 17, 18, and 21.		Sum of cols. 3, 4, 5, 6 (in part), 7, 19, and 84 per cent of col. 20.[a]								
	Area.[b a]	Percentage of total land area.	Area.[b a]	Percentage of total land area.				Col. 21÷ col. 2.	(Col. 19+84 per cent col. 20)÷ (col. 2).	Total.	Percentage of total land area.
	Acres.		*Acres.*		*Per cent.*	*Per cent.*	*Per cent.*	*Per cent.*	*Per cent.*	*Acres.*	
Arizona	51,849,445	71.2	51,148,146	70.2	50.7	17.2	1.2	2.5	2.2	572,296	0.8
Arkansas	1,597,086	4.8	1,579,382	4.7	1.1	3.6				17,704	.1
California	45,977,780	46.2	43,895,717	44.1	21.0	20.4	.9	2.1	1.8	1,788,588	1.8
Colorado	33,394,403	50.3	32,934,856	49.6	28.5	20.2	.1	1.0	.9	5,105,007	7.7
Florida	743,634	2.1	623,257	1.8	.9	.9				120,377	.3
Idaho	36,374,354	68.2	34,948,742	65.5	30.6	33.2	.1	1.9	1.6	1,612,487	3.0
Kansas	271,617	.5	271,612	.5	.2	.3	.1				
Michigan	167,642	.5	167,642	.4	.2	.2					
Minnesota	2,083,024	4.0	2,072,004	4.0	2.1	1.9				11,020	
Montana	41,107,100	43.9	40,633,871	43.4	23.8	17.4	1.3	1.2	1.0	14,506,261	15.5
Nebraska	817,379	1.7	764,680	1.6	.6	.4		.7	.6	761	
Nevada	63,704,302	90.6	63,114,319	89.8	79.0	7.5		3.9	3.3	234,502	.3
New Mexico	39,139,183	49.9	39,082,524	49.8	38.4	11.0	.2	.3	.3	5,564,900	7.1
North Dakota	757,331	1.7	744,052	1.7	1.5			.2	.1	15,204,102	33.8
Oklahoma	182,048	.4	182,048	.4	.1	.1	.2				
Oregon	30,606,907	50.0	30,186,843	49.3	26.1	21.6	.3	1.6	1.4	306,390	.5
South Dakota	5,007,489	10.2	4,959,648	10.1	7.3	2.3	.1	.5	.4	8,542	
Utah	41,977,704	79.8	41,499,025	78.9	64.2	14.2	.1	.5	.4	8,387,437	16.0
Washington	13,563,030	31.7	13,191,544	30.8	4.3	23.0	2.0	3.7	3.1	1,514,408	3.5
Wyoming	44,905,478	71.9	42,570,725	68.2	50.5	13.5	3.2	1.2	1.0	5,183,014	8.3
Total	454,227,136	39.5	444,570,637	38.6	25.2	11.9	.6	1.2	1.0	60,137,796	5.2

[a] It is not certain that the quantities in column 2 are not to some extent a duplication of quantities in columns 11, 13, 14, 15, 16, 17, and 18. The totals in columns 13, 14, 15, and 21 are too great (see footnote *f* and footnote [b] on p. —). True total for United States land is probably less than the total in column 22 and possibly greater than the total in column 24.

[b] Does not include land entered under various homesteading acts or other acts where the title of the United States is qualified. Does not include Indian lands.

[c] Includes certain National Forest land which may be entered under act of June 11, 1906, and also includes over 1,500,000 acres in process of elimination from National Forests.

[d] Under jurisdiction of Secretary of Agriculture and included in National Forests as follows: Arizona, 807,040; California, 7,200; Colorado, 300; New Mexico, 160; Oregon, 480; South Dakota, 1,280; Washington, 608,480; total, 1,424,940 acres.

[e] Under jurisdiction of Secretary of War: Montana, 5; California, 1.

[f] The areas given for land under reclamation withdrawal that lies outside of National Forest boundaries include private land within the boundaries of the withdrawal, and may also include land reserved for other purposes, e.g., withdrawals under the act of June 25, 1910. It is also possible that some of the land designated "Unappropriated and unreserved land" is under reclamation withdrawal. Sixteen per cent of the land under reclamation withdrawal that lies within the exterior boundaries of the National Forest does not belong to the United States; therefore it is very possible that the figures given in column 20 for withdrawn land outside National Forest boundaries are at least 16 per cent too large, and the areas in column 21 are also too great. The total would then be 11,813,512 acres, instead of 13,892,461.

[g] A considerable portion of the area reserved for power sites is also under withdrawal as a part of a National Forest, and listed in column 4.

[h] See columns 11 to 18, with corresponding footnotes.

TABLE 2.—POTENTIAL WATER-POWER RESOURCES, MINIMUM AND MAXIMUM ESTIMATES, OF THE SEVERAL STATES AND OF THE NATIONAL FORESTS AND PERCENTAGE RELATIONS BY STATES AND BY GEOGRAPHIC DIVISIONS.

		Total potential water power.				Amount within National Forest.				Percentage relation National Forest power to total power.	
		Minimum.		Maximum.		Minimum.		Maximum.			
		Horse-power.	Per cent.	Horse-power.	Per cent.	Horse-power.	Per cent.	Horse-power.	Per cent.	Minimum.	Maximum.
	New England:										
1	Maine	443,000	1.59	809,000	1.50						
2	New Hampshire	135,000	.48	246,000	.46						
3	Vermont	94,000	.33	172,000	.32						
4	Massachusetts	118,000	.43	228,000	.42						
5	Rhode Island	6,000	.02	13,000	.02						
6	Connecticut	72,000	.26	137,000	.26						
	Middle Atlantic:										
7	New York	1,037,000	3.71	1,698,000	3.15						
8	New Jersey	44,000	.16	106,000	.20						
9	Pennsylvania	276,000	.99	684,000	1.27						
	East North Central:										
10	Ohio	59,000	.21	178,000	.33						
11	Indiana	43,000	.16	118,000	.22						
12	Illinois	192,000	.69	345,000	.64						
13	Michigan	180,000	.64	293,000	.55	0	0	0	0	0	0
14	Wisconsin	358,000	1.28	670,000	1.24						
	West North Central:										
15	Minnesota	232,000	.83	494,000	.92	9,400	0.11	20,000	0.12	4.05	4.05
16	Iowa	160,000	.57	382,000	.71						
17	Missouri	72,000	.26	163,000	.30						
18	North Dakota	88,000	.31	207,000	.38						
19	South Dakota	43,000	.16	75,000	.14	3,500	.04	6,300	.04	8.14	8.40
20	Nebraska	196,000	.70	366,000	.68	0	0	0	0	0	0
21	Kansas	111,000	.40	269,000	.50	0	0	0	0	0	0
	South Atlantic:										
22	Delaware	5,000	.02	11,000	.02						
23	Maryland and District of Columbia	48,000	.17	133,000	.24						
24	Virginia	492,000	1.76	870,000	1.61						
25	West Virginia	381,000	1.36	1,051,000	1.95						
26	North Carolina	578,000	2.07	875,000	1.62						
27	South Carolina	460,000	1.64	677,000	1.25						
28	Georgia	374,000	1.34	627,000	1.16						
29	Florida	8,000	.03	13,000	.02	0	0	0	0	0	
	East South Central:										
30	Kentucky	83,000	.30	197,000	.37						
31	Tennessee	463,000	1.66	761,000	1.41						
32	Alabama	509,000	1.82	943,000	1.74						
33	Mississippi	32,000	.11	63,000	.12						
	West South Central:										
34	Arkansas	22,000	.08	61,000	.11	5,700	.07	15,400	.09	25.91	25.25
35	Louisiana	1,000	.00	2,000	.00						
36	Oklahoma	75,000	.27	208,000	.39	300	.00	1,200	.01	.67	.76
37	Texas	255,000	.91	551,000	1.02						
	Mountain:										
38	Montana	2,749,000	9.84	4,331,000	8.03	1,159,000	13.64	1,871,000	11.09	42.16	43.20
39	Idaho	2,362,000	8.45	5,067,000	9.40	1,457,000	17.15	3,036,000	17.99	61.68	59.92
40	Wyoming	773,000	2.76	1,305,000	2.42	317,400	3.74	525,800	3.12	41.06	40.29
41	Colorado	842,000	3.01	1,697,000	3.15	232,800	2.74	521,200	3.09	27.65	30.71
42	New Mexico	160,000	.57	439,000	.81	64,300	.76	147,800	.88	40.19	33.67
43	Arizona	893,000	3.20	1,698,000	3.15	563,000	6.62	1,023,400	6.06	63.05	60.27
44	Utah	743,000	2.66	1,318,000	2.45	356,000	4.19	630,000	3.73	47.91	47.80
45	Nevada	172,000	.62	276,000	.51	14,000	.16	22,400	.13	8.14	8.12
	Pacific:										
46	Washington	4,932,000	17.65	8,647,000	16.04	1,147,000	13.50	1,949,000	11.55	23.26	22.54
47	Oregon	3,148,000	11.27	6,613,000	12.27	861,000	10.13	1,847,000	10.94	27.35	27.93
48	California	3,424,000	12.25	7,818,000	14.50	2,307,000	27.15	5,258,000	31.16	67.38	67.26
49	New England	868,000	3.11	1,605,000	2.98						
50	Middle Atlantic	1,357,000	4.86	2,488,000	4.62						
51	East North Central	832,000	2.98	1,604,000	2.98						
52	West North Central	902,000	3.23	1,956,000	3.63	12,900	.15	26,300	.16	1.43	1.34
53	South Atlantic	2,346,000	8.39	4,257,000	7.90	0		0	0		
54	East South Central	1,087,000	3.89	1,964,000	3.64						
55	West South Central	353,000	1.26	822,000	1.52	6,200	.07	16,600	.10	1.76	2.02
56	Mountain	8,694,000	31.11	16,131,000	29.92	4,163,500	49.00	7,777,600	46.09	47.89	48.22
57	Pacific	11,504,000	41.17	23,078,000	42.81	4,315,000	50.78	9,054,000	53.65	37.51	39.23
	United States	27,943,000	100.00	53,905,000	100.00	8,497,600	100.00	16,874,500	100.00	30.41	31.30

NOTE.—These figures are based upon the estimates made by the United States Geological Survey in 1908 for the National Conservation Commission, as revised by the Commissioner of Corporations in his report on "Water power developed in the United States," 1912, with correction for the State of Idaho.

TABLE 3.—TOTAL PRIMARY POWER, 1912, 1907, AND 1902: STEAM POWER, WATER POWER, AND GAS POWER, BY STATES AND BY GEOGRAPHIC DIVISIONS, IN HORSEPOWER.

		Water power.			Steam power.			Gas power.			Total power.		
		1912	1907	1902	1912	1907	1902	1912	1907	1902	1912	1907	1902
	New England:												
1	Maine	387,073	283,039	201,743	227,797	183,343	133,377	5,397	5,507	4,838	620,267	471,889	[illegible]
2	New Hampshire	203,772	143,120	117,855	188,447	147,547	114,080	4,563	8,748	7,763	396,782	299,415	[illegible]
3	Vermont	120,684	109,154	93,147	86,699	73,873	60,223	3,440	3,332	3,150	210,823	186,359	[illegible]
4	Massachusetts	214,558	203,689	193,484	1,512,757	1,142,224	894,533	53,821	44,928	31,997	1,781,136	1,390,841	1,120,014
5	Rhode Island	35,169	32,806	30,732	288,060	215,113	159,297	7,868	7,059	6,087	331,097	254,978	196,116
6	Connecticut	98,544	91,067	74,180	449,573	333,094	254,347	23,034	15,571	9,537	571,151	439,732	338,064
	Middle Atlantic:												
7	New York	896,229	731,259	539,275	2,492,527	1,807,804	1,197,827	144,335	133,894	99,731	3,533,091	2,672,957	1,836,833
8	New Jersey	22,132	20,878	19,988	880,090	654,924	443,049	37,605	27,485	19,617	939,827	703,287	[illegible]
9	Pennsylvania	190,956	84,852	59,400	3,565,991	2,919,945	2,193,040	233,395	169,210	99,975	3,990,342	3,174,007	[illegible]
	East North Central:												
10	Ohio	25,572	20,211	20,305	2,210,370	1,634,837	1,141,815	161,442	91,455	39,198	2,397,384	1,746,503	1,201,318
11	Indiana	30,733	28,216	11,702	796,954	579,956	399,770	165,257	78,163	21,838	992,944	686,335	433,310
12	Illinois	53,850	25,258	23,719	1,724,979	1,248,542	845,148	55,539	41,162	31,390	1,834,368	1,314,962	[illegible]
13	Michigan	178,079	126,686	54,302	828,560	584,459	448,493	20,164	15,709	11,560	1,026,803	726,854	514,355
14	Wisconsin	234,255	145,366	116,570	590,214	444,114	350,879	34,541	23,305	12,108	859,010	613,085	[illegible]
	West North Central:												
15	Minnesota	174,537	132,976	49,240	374,148	276,398	198,286	13,401	9,040	6,798	562,086	418,414	254,324
16	Iowa	13,368	10,292	9,244	258,666	187,988	153,504	12,857	8,144	6,227	284,891	206,424	168,975
17	Missouri	5,647	5,736	4,481	619,715	456,753	311,450	16,594	11,855	8,227	641,956	474,344	324,158
18	North Dakota	655	547	496	27,032	19,772	11,373	2,059	1,265	706	29,746	21,584	12,575
19	South Dakota	7,774	3,196	1,926	30,524	20,998	12,802	8,439	2,769	1,583	46,737	26,963	16,311
20	Nebraska	13,449	10,304	9,158	112,859	78,791	48,332	9,677	4,771	2,706	135,985	93,866	60,196
21	Kansas	17,223	15,902	7,969	312,625	179,875	87,995	44,717	20,164	5,938	374,565	215,941	101,902
	South Atlantic:												
22	Delaware	5,970	5,514	5,328	66,232	56,687	45,763	903	924	1,145	73,105	63,125	52,236
23	Maryland and District of Columbia	16,889	13,651	11,481	416,849	332,485	207,866	9,314	9,339	8,452	443,052	355,475	227,799
24	Virginia	123,079	63,947	27,159	361,639	245,394	150,189	5,128	4,521	2,812	489,846	313,862	180,160
25	West Virginia	19,181	12,559	6,112	280,622	198,428	130,371	25,906	14,324	5,815	325,709	225,311	142,298
26	North Carolina	110,203	49,320	33,596	357,093	256,729	167,729	7,517	3,846	2,212	474,813	309,895	203,537
27	South Carolina	221,492	119,007	40,108	266,020	198,915	143,489	6,074	2,569	1,905	493,586	320,491	185,502
28	Georgia	111,501	70,702	37,665	359,026	265,614	183,964	10,893	7,256	1,821	481,420	343,572	223,450
29	Florida	7,303	1,550	1,517	153,457	90,513	47,912	3,837	2,063	606	164,597	94,126	50,035
	East South Central:												
30	Kentucky	5,841	5,067	4,491	342,099	261,080	189,546	8,092	4,908	2,864	356,032	271,055	196,901
31	Tennessee	37,396	11,104	11,047	341,555	261,115	173,704	3,457	2,152	1,444	382,408	274,371	186,195
32	Alabama	26,446	19,168	9,479	430,462	354,745	253,208	7,826	4,041	1,464	464,734	377,954	264,151
33	Mississippi	335	174	191	298,348	191,513	101,758	1,729	868	307	300,412	192,555	102,256
	West South Central:												
34	Arkansas	3,768	938	871	243,767	168,153	106,397	2,465	1,317	689	250,000	170,408	107,957
35	Louisiana	0	151	285	452,665	363,423	249,761	8,894	5,368	2,295	461,559	368,942	252,341
36	Oklahoma	2,825	327	128	129,206	69,287	25,486	19,532	5,928	829	151,563	75,542	26,443
37	Texas	5,156	4,805	3,093	460,281	296,389	178,619	34,282	13,856	2,195	499,719	315,050	183,907
	Mountain:												
38	Montana	119,300	69,301	34,326	73,533	55,715	41,452	932	426	405	193,765	125,442	76,183
39	Idaho	55,054	13,367	5,273	52,284	29,577	12,171	283	248	197	107,621	43,192	17,641
40	Wyoming	1,849	1,197	518	18,882	9,325	5,555	113	295	816	20,844	10,817	6,889
41	Colorado	83,230	29,153	14,854	246,760	204,860	121,586	1,847	1,906	1,447	331,837	235,919	137,887
42	New Mexico	846	617	201	24,219	14,322	6,101	2,055	419	385	27,120	15,358	6,687
43	Arizona	9,346	934	320	56,787	34,973	16,498	1,115	1,833	2,120	67,248	37,740	18,938
44	Utah	77,532	47,370	21,708	66,263	26,124	13,290	0	641	671	143,795	74,135	35,669
45	Nevada	12,709	6,812	2,296	8,808	3,392	1,156	1,266	965	262	22,783	11,169	3,714
	Pacific:												
46	Washington	279,760	67,714	24,089	393,276	263,016	140,110	1,764	1,776	1,218	674,800	332,506	165,417
47	Oregon	168,807	138,779	31,296	196,112	114,132	59,404	906	677	475	365,825	253,588	91,175
48	California	440,243	216,150	91,656	664,987	397,986	220,937	13,832	27,788	10,111	1,119,062	641,924	322,704
49	New England	1,059,800	862,875	711,141	2,753,333	2,095,194	1,615,857	98,123	85,145	63,372	3,911,256	3,043,214	2,390,370
50	Middle Atlantic	1,109,317	836,989	618,663	6,938,608	5,382,673	3,833,916	415,335	330,589	219,323	8,463,260	6,550,251	4,671,902
51	East North Central	522,489	345,737	226,598	6,151,077	4,492,208	3,186,105	436,943	249,794	116,654	7,110,509	5,087,739	3,529,357
52	West North Central	232,653	178,953	82,514	1,735,569	1,220,575	823,742	107,744	58,008	32,185	2,075,966	1,457,536	938,441
53	South Atlantic	615,618	336,250	162,966	2,260,938	1,644,765	1,077,283	69,572	44,842	24,768	2,946,128	2,025,857	1,265,017
54	East South Central	70,018	35,513	25,208	1,412,464	1,068,453	718,216	21,104	11,969	6,079	1,503,586	1,115,935	749,503
55	West South Central	11,749	6,221	4,377	1,285,919	897,252	560,263	65,173	26,469	6,008	1,362,841	929,942	570,648
56	Mountain	359,866	168,751	79,496	547,536	378,288	217,809	7,611	6,733	6,303	915,013	553,772	303,608
57	Pacific	888,810	422,643	147,041	1,254,375	775,134	420,451	16,502	30,241	11,804	2,159,687	1,228,018	579,296
	United States	4,870,320	3,193,932	2,058,004	24,339,819	17,954,542	12,453,642	1,238,107	843,790	486,496	30,448,246	21,992,264	14,998,142

NOTE.—Figures for primary power in manufacturing plants are given in the Census for Manufactures, 1910, for the years 1899, 1904, and 1909. Primary power for 1912, 1907, and 1902 has been estimated by assuming a uniform increase from 1899 to 1904 and from 1904 to 1909 and 1912. The term "Steam power" includes steam engines and steam turbines; "Water power," water wheels, turbines and motors; and "Gas power," internal combustion engines using either gas or oil fuel.

TABLE 4.—TOTAL PRIMARY POWER: INSTALLED CAPACITY, 1912, 1907, AND 1902, COMMERCIAL AND MUNICIPAL CENTRAL STATIONS, STREET AND ELECTRIC RAILWAYS, AND MANUFACTURING PLANTS, BY STATES AND BY GEOGRAPHIC DIVISIONS, IN HORSEPOWER.

		Commercial and municipal central stations.			Street and electric railways.			Manufacturing plants.			Total.		
		1912	1907	1902	1912	1907	1902	1912	1907	1902	1912	1907	1902
	New England:												
1	Maine	89,683	57,880	24,889	40,090	20,345	13,065	490,494	393,664	302,004	620,267	471,889	339,958
2	New Hampshire	84,228	46,784	28,096	4,102	3,630	4,015	308,452	249,001	207,587	396,782	299,415	239,698
3	Vermont	50,363	38,566	23,857	7,655	5,450	1,151	152,805	142,343	131,512	210,823	186,359	156,520
4	Massachusetts	350,780	188,335	124,213	272,796	199,087	136,180	1,157,560	1,003,419	859,621	1,781,136	1,390,841	1,120,014
5	Rhode Island	50,499	27,986	17,600	44,850	29,085	13,133	235,748	197,907	165,381	331,097	254,978	196,116
6	Connecticut	109,691	56,243	28,389	52,395	45,108	31,246	409,065	338,381	278,429	571,151	439,732	338,064
	Middle Atlantic:												
7	New York	1,157,809	722,653	323,413	655,720	417,151	239,770	1,719,562	1,533,153	1,273,650	3,533,091	2,672,957	1,836,833
8	New Jersey	239,514	93,602	68,761	29,098	91,935	31,140	671,215	517,750	332,753	939,827	703,287	482,654
9	Pennsylvania	615,994	302,537	175,510	292,885	299,236	139,155	3,081,463	2,572,234	2,037,750	3,990,342	3,174,007	2,352,415
	East North Central:												
10	Ohio	337,272	179,111	103,745	333,075	236,145	131,350	1,727,037	1,331,247	966,223	2,397,384	1,746,503	1,201,318
11	Indiana	185,503	116,828	54,237	121,920	80,139	26,805	685,521	489,368	352,268	992,944	686,335	433,310
12	Illinois	645,631	299,246	126,866	174,780	198,246	135,094	1,013,957	817,470	638,497	1,834,368	1,314,962	900,457
13	Michigan	377,182	184,297	[illegible]	58,280	[illegible]	[illegible]	781,941	480,802	402,781	1,026,803	702,884	514,555
14	Wisconsin	145,411	58,899	35,715	126,652	64,293	40,415	586,947	489,903	403,787	859,010	613,085	479,917
	West North Central:												
15	Minnesota	148,111	121,825	34,823	113,583	51,230	21,555	300,392	245,359	197,946	562,086	418,414	254,324
16	Iowa	77,131	46,739	39,504	56,462	32,350	20,075	151,298	127,335	109,396	284,891	206,424	168,975
17	Missouri	182,095	111,416	45,318	125,940	91,522	65,105	333,921	271,406	213,735	641,956	474,344	324,158
18	North Dakota	16,169	10,277	3,930	80	250	0	13,497	11,057	8,645	29,746	21,584	12,575
19	South Dakota	27,748	12,984	5,057	0	0	0	18,989	13,979	11,254	46,737	26,963	16,311
20	Nebraska	52,168	30,020	12,308	12,125	12,082	5,100	84,292	51,754	42,788	135,985	93,866	60,196
21	Kansas	98,328	48,374	13,283	12,280	7,985	3,715	263,957	159,582	84,904	374,565	215,941	101,902
	South Atlantic:												
22	Delaware	4,651	7,775	1,585	20,250	7,025	5,800	48,204	48,325	44,851	73,105	63,125	52,236
23	Maryland and District of Columbia	108,427	77,571	28,278	94,441	79,250	38,690	240,184	198,654	160,831	443,052	355,475	227,799
24	Virginia	59,585	14,619	5,443	100,904	67,863	16,810	329,357	231,380	157,907	489,846	313,862	180,160
25	West Virginia	43,185	21,428	10,820	25,740	21,463	12,050	256,784	182,420	119,428	325,709	225,311	142,298
26	North Carolina	64,983	20,683	6,566	28,730	12,425	7,022	381,100	276,787	189,949	474,813	309,895	203,537
27	South Carolina	218,496	84,115	21,205	12,110	19,616	5,575	262,980	216,760	158,422	493,586	320,491	185,502
28	Georgia	87,951	54,704	12,630	82,881	38,676	28,515	310,588	250,192	182,305	481,420	343,572	223,450
29	Florida	33,836	14,370	6,114	17,868	10,913	3,995	112,893	68,843	39,926	164,597	94,126	50,035
	East South Central:												
30	Kentucky	81,767	41,984	21,415	26,460	29,425	16,060	247,805	199,646	159,426	356,032	271,055	196,901
31	Tennessee	68,994	28,730	19,003	53,367	39,655	11,482	260,047	205,986	155,710	382,408	274,371	186,195
32	Alabama	34,473	26,404	7,620	48,930	28,215	12,350	381,331	325,335	244,181	464,734	377,954	264,151
33	Mississippi	30,497	15,522	7,660	9,850	10,864	2,555	260,065	166,169	92,041	300,412	192,555	102,256
	West South Central:												
34	Arkansas	25,860	13,953	8,433	16,744	10,541	2,365	207,396	145,914	97,159	250,000	170,408	107,957
35	Louisiana	27,165	23,292	13,767	43,745	43,431	13,550	390,649	302,219	225,024	461,559	368,942	252,341
36	Oklahoma	53,922	22,623	4,407	9,675	1,800	0	87,966	51,119	22,036	151,563	75,542	26,443
37	Texas	126,616	71,914	34,887	41,072	18,385	7,380	332,031	224,651	141,640	499,719	315,050	183,907
	Mountain:												
38	Montana	115,710	68,817	41,887	1,520	1,150	1,600	76,535	55,475	42,696	193,765	125,442	76,183
39	Idaho	56,375	13,694	5,454	0	0	60	51,236	29,498	12,127	107,621	43,192	17,641
40	Wyoming	11,596	5,125	3,229	0	0	0	9,248	5,652	3,650	20,844	10,817	6,889
41	Colorado	134,004	82,427	38,268	48,532	21,790	10,035	149,301	131,702	89,584	331,837	235,919	137,887
42	New Mexico	11,015	4,548	1,780	0	1,180	0	16,105	9,630	4,907	27,120	15,358	6,687
43	Arizona	22,075	7,746	2,740	600	0	250	44,573	29,994	16,148	67,248	37,740	18,938
44	Utah	60,588	35,950	20,460	41,286	12,190	900	41,421	25,995	14,309	143,795	74,135	35,669
45	Nevada	15,420	6,980	1,720	0	0	0	7,363	4,189	1,994	22,783	11,169	3,714
	Pacific:												
46	Washington	95,884	67,224	22,894	245,817	42,437	14,492	333,099	222,845	128,031	674,800	332,506	165,417
47	Oregon	46,015	126,815	17,758	109,450	0	4,700	210,560	126,773	64,077	365,825	253,588	91,175
48	California	848,248	384,673	134,788	33,311	61,315	38,387	237,503	195,936	149,529	1,119,062	641,924	322,704
49	New England	735,244	415,794	247,044	421,888	302,705	198,792	2,754,124	2,324,715	1,944,334	3,911,256	3,043,214	2,390,370
50	Middle Atlantic	2,013,317	1,118,792	567,684	977,703	808,322	410,065	5,472,240	4,623,137	3,694,153	8,463,260	6,550,251	4,671,902
51	East North Central	1,690,999	838,281	385,446	824,707	635,668	380,355	4,594,803	3,613,790	2,763,556	7,110,509	5,087,739	3,529,357
52	West North Central	601,750	381,635	154,223	327,470	195,419	115,550	1,146,746	880,482	668,668	2,075,966	1,457,536	938,441
53	South Atlantic	621,114	295,265	92,641	382,924	257,231	118,777	1,942,090	1,473,361	1,053,619	2,946,128	2,025,857	1,265,017
54	East South Central	215,731	112,640	55,698	138,607	106,159	42,447	1,149,248	897,136	651,358	1,503,586	1,115,935	749,508
55	West South Central	233,563	131,782	61,494	111,236	74,257	23,295	1,018,042	723,903	485,859	1,362,841	929,942	570,648
56	Mountain	426,783	225,287	105,338	91,938	36,310	12,845	396,292	292,175	185,425	915,013	553,772	303,608
57	Pacific	990,147	578,712	175,480	388,578	108,752	57,179	780,962	545,554	346,637	2,159,687	1,228,018	579,296
	United States	7,528,648	4,098,188	1,845,048	3,665,051	2,519,823	1,359,285	19,254,547	15,374,253	11,793,809	30,448,246	21,992,264	14,998,142

NOTE.—The reduction from 1907 to 1912 in commercial and municipal central stations in the State of Oregon and the marked increase in street and electric railways for the same period in the States of Oregon and Washington arises from the fact that the Census Bureau classified the plants now operated by the Portland Railway, Light & Power Co., and by the Puget Sound Traction, Light & Power Co., as central stations in 1907 and as electric railway stations in 1912. Both should properly have been classified as central stations in 1912.

Figures for primary power in manufacturing plants are given in the Census for Manufactures 1910, for the years 1899, 1904, and 1909. Primary power for 1912, 1907, and 1902 has been estimated by assuming a uniform increase from 1899 to 1904 and from 1904 to 1909 and 1912.

TABLE 5.—TOTAL PRIMARY POWER PER THOUSAND OF POPULATION IN 1912, 1907, AND 1902, IN COMMERCIAL AND MUNICIPAL CENTRAL STATIONS, STREET AND ELECTRIC RAILWAYS, AND MANUFACTURING PLANTS, BY STATES AND BY GEOGRAPHIC DIVISIONS, IN HORSEPOWER.

		Commercial and municipal central stations.			Street and electric railways.			Manufacturing plants.			Total.		
		1912	1907	1902	1912	1907	1902	1912	1907	1902	1912	1907	1902
	New England:												
1	Maine	119.1	79.4	35.5	53.2	27.9	18.3	651.3	540.1	428.6	823.7	647.6	482.4
2	New Hampshire	193.8	110.1	67.6	9.4	8.5	9.7	709.4	585.6	499.5	912.6	704.2	576.8
3	Vermont	140.4	109.4	68.9	21.4	15.5	3.3	426.0	403.8	379.9	587.7	528.6	452.1
4	Massachusetts	100.5	58.7	42.4	78.1	62.1	46.6	331.5	312.8	294.0	510.2	433.5	383.0
5	Rhode Island	88.9	54.8	38.9	78.9	57.0	29.0	415.0	387.7	365.4	582.9	499.5	433.3
6	Connecticut	94.4	53.2	29.8	45.1	42.7	32.8	352.3	320.4	292.5	491.9	416.4	355.1
	Middle Atlantic:												
7	New York	121.6	84.1	42.3	68.9	48.6	31.3	180.6	178.5	166.3	371.0	311.1	239.8
8	New Jersey	89.2	39.7	34.0	10.8	39.1	15.4	250.2	220.1	189.3	350.2	299.1	238.7
9	Pennsylvania	77.3	41.6	26.6	36.8	41.1	21.1	386.7	353.4	309.1	500.8	436.1	351.9
	East North Central:												
10	Ohio	68.8	39.0	24.2	67.9	51.4	30.6	352.3	289.7	225.4	489.0	380.0	280.2
11	Indiana	67.6	44.1	21.2	44.5	30.3	10.5	250.0	184.7	137.9	362.1	259.1	169.7
12	Illinois	111.0	55.3	25.4	30.0	36.7	27.0	174.2	151.2	127.8	315.2	243.2	180.2
13	Michigan	130.2	68.3	25.9	23.6	21.1	18.7	200.7	179.9	160.9	354.5	269.2	205.5
14	Wisconsin	60.8	26.1	16.8	52.9	28.5	19.0	245.3	216.9	190.0	358.9	271.4	225.9
	West North Central:												
15	Minnesota	69.0	61.4	19.2	52.9	25.8	11.8	139.8	123.7	108.8	261.6	210.9	139.8
16	Iowa	34.7	21.0	17.7	25.4	14.5	9.0	68.1	57.2	49.1	128.1	92.7	75.7
17	Missouri	54.6	34.4	14.4	37.3	28.2	20.7	100.2	83.7	67.9	192.6	146.4	103.0
18	North Dakota	25.5	20.4	10.5	0.1	0.5	0	21.3	21.9	23.1	46.8	42.8	33.6
19	South Dakota	44.4	24.4	11.5	0	0	0	30.4	26.3	25.5	74.8	50.7	37.1
20	Nebraska	42.7	26.0	11.3	15.7	10.4	4.7	53.0	44.7	39.1	111.4	81.1	55.1
21	Kansas	56.5	29.7	8.7	7.1	4.9	2.5	151.7	98.0	56.0	215.3	132.6	67.2
	South Atlantic:												
22	Delaware	22.6	39.4	8.4	98.2	35.6	30.8	233.6	244.8	238.1	354.3	319.8	277.3
23	Maryland and District of Columbia	65.2	49.1	18.8	56.8	50.1	25.8	144.5	125.6	107.2	266.6	224.8	151.9
24	Virginia	28.3	7.3	2.8	47.9	33.9	8.9	156.2	115.5	83.2	232.4	156.7	94.9
25	West Virginia	33.7	18.7	10.6	20.1	18.7	11.9	200.6	159.0	117.8	254.4	196.4	140.3
26	North Carolina	28.5	9.8	3.3	12.6	5.9	3.6	167.5	130.7	96.9	208.6	146.3	103.8
27	South Carolina	140.6	57.4	15.4	7.8	13.4	4.3	169.1	147.9	115.0	317.4	218.7	134.7
28	Georgia	32.7	21.9	5.5	30.7	15.5	12.4	115.2	100.2	79.3	178.4	137.5	97.2
29	Florida	42.1	20.9	10.6	22.3	15.8	6.9	140.6	99.9	69.3	205.1	136.5	86.8
	East South Central:												
30	Kentucky	35.2	18.6	9.9	11.4	13.1	7.4	106.7	88.7	73.2	153.3	120.5	90.5
31	Tennessee	31.0	13.4	9.2	24.0	18.5	5.6	117.0	96.3	75.8	172.1	128.3	90.6
32	Alabama	15.6	12.9	4.0	22.2	12.8	6.5	172.8	158.6	128.9	210.6	184.3	139.5
33	Mississippi	16.5	9.0	4.8	5.3	6.3	1.6	140.4	96.2	57.4	162.2	111.4	63.8
	West South Central:												
34	Arkansas	15.9	9.3	6.2	10.3	7.0	1.7	127.0	97.3	71.1	153.1	113.6	78.9
35	Louisiana	15.8	14.7	9.6	25.5	27.5	9.4	227.4	191.4	156.3	268.7	233.7	175.2
36	Oklahoma	29.2	16.1	4.6	5.2	1.3	0	47.5	36.2	22.6	81.8	53.5	27.1
37	Texas	30.9	19.7	10.8	10.0	5.1	2.3	81.2	61.4	43.9	122.3	86.1	57.0
	Mountain:												
38	Montana	285.2	203.3	117.5	3.7	3.4	5.9	188.7	163.9	157.4	477.6	370.6	280.8
39	Idaho	155.6	49.0	27.8	0	0	.3	141.5	105.6	61.8	297.1	154.7	89.8
40	Wyoming	73.4	39.1	31.1	0	0	0	58.6	43.5	35.3	132.0	82.6	66.5
41	Colorado	156.4	113.6	64.4	56.6	30.0	16.9	174.2	181.5	150.7	387.2	325.1	232.0
42	New Mexico	30.8	15.7	8.0	0	4.1	0	45.1	33.2	22.0	76.1	52.9	29.9
43	Arizona	99.2	42.7	18.1	2.7	0	1.8	200.2	165.4	115.3	302.1	208.1	135.2
44	Utah	153.4	96.8	68.8	104.5	35.2	3.0	106.1	75.1	48.2	364.0	214.2	120.1
45	Nevada	170.0	98.7	33.9	0	0	0	81.1	59.3	39.3	251.2	157.8	73.5
	Pacific:												
46	Washington	74.7	69.6	35.2	191.7	43.9	22.3	259.8	230.8	197.1	526.4	344.3	254.7
47	Oregon	63.0	211.5	38.0	149.8	0	9.2	287.9	211.5	147.5	500.6	423.0	194.8
48	California	329.1	181.1	80.6	12.9	28.9	22.9	92.2	92.2	89.4	434.2	302.1	192.9
49	New England	108.6	66.2	42.7	62.3	48.2	34.3	406.9	370.1	335.5	577.9	484.6	412.4
50	Middle Atlantic	99.8	61.4	34.9	48.4	44.4	25.2	271.1	253.7	227.0	419.3	359.4	287.1
51	East North Central	90.1	47.6	23.4	44.0	36.1	23.1	244.9	205.2	167.9	379.0	288.9	214.5
52	West North Central	50.5	33.9	14.5	27.5	17.3	10.9	96.1	78.1	63.0	174.0	129.4	88.5
53	South Atlantic	49.3	25.2	8.5	30.4	22.0	11.0	154.3	125.9	97.5	234.0	173.1	117.1
54	East South Central	25.1	13.8	7.2	16.1	13.0	5.5	133.6	109.9	84.3	174.8	136.6	97.0
55	West South Central	25.1	16.2	8.8	12.0	9.1	3.3	109.6	88.8	69.3	146.8	114.0	81.5
56	Mountain	149.9	95.4	56.2	32.3	15.4	6.8	139.1	123.7	98.8	321.3	234.4	161.8
57	Pacific	215.8	156.8	62.9	84.7	28.1	20.5	170.2	147.9	124.2	470.6	332.8	207.6
	United States	78.9	46.9	23.2	38.4	28.8	17.1	201.6	175.7	148.6	318.8	251.3	188.9

NOTE.—The reduction from 1907 to 1912 in commercial and municipal central stations in the State of Oregon and the marked increase in street and electric railways for the same period in the States of Oregon and Washington arises from the fact that the Census Bureau classified the plants now operated by the Portland Railway, Light & Power Co. and by the Puget Sound Traction, Light & Power Co. as central stations in 1907 and as electric railway stations in 1912. Both should properly have been classified as central stations in 1912.

Figures for primary power in manufacturing plants are given in the Census for Manufactures, 1910, for the years 1899, 1904, and 1909. Primary power for 1912, 1907, and 1902 has been estimated by assuming a uniform increase from 1899 to 1904 and from 1904 to 1909 and 1912.

TABLE 6.—WATER POWER; INSTALLED CAPACITY, 1912, 1907, AND 1902, IN COMMERCIAL AND MUNICIPAL CENTRAL STATIONS, STREET AND ELECTRIC RAILWAYS, AND MANUFACTURING PLANTS, BY STATES AND BY GEOGRAPHIC DIVISIONS, IN HORSEPOWER.

		Commercial and municipal central stations.			Street and electric railways.			Manufacturing plants.			Total.		
		1912	1907	1902	1912	1907	1902	1912	1907	1902	1912	1907	1902
	New England:												
1	Maine	69,938	39,766	13,046	25,564	7,000	3,325	291,571	236,273	185,372	387,073	283,039	201,743
2	New Hampshire	56,937	25,404	15,406	2,182	800	0	144,653	116,916	102,449	203,772	143,120	117,855
3	Vermont	35,272	28,472	16,296	4,655	2,750	140	80,757	77,982	76,711	120,684	109,154	93,147
4	Massachusetts	24,480	16,781	8,933	1,709	1,628	1,732	188,369	185,280	182,819	214,558	203,689	193,484
5	Rhode Island	2,440	2,263	1,925	0	0	0	32,729	30,543	28,807	35,169	32,806	30,732
6	Connecticut	19,434	18,045	6,565	900	1,938	646	78,210	71,084	66,969	98,544	91,067	74,180
	Middle Atlantic:												
7	New York	512,406	305,950	128,785	18,515	9,485	8,645	365,308	415,824	401,845	896,229	731,259	539,275
8	New Jersey	1,569	1,794	1,005	0	0	0	20,563	19,084	18,983	22,132	20,878	19,988
9	Pennsylvania	132,293	30,863	6,988	725	625	200	57,938	53,364	52,212	190,956	84,852	59,400
	East North Central:												
10	Ohio	8,860	2,037	1,676	1,830	1,250	600	14,882	16,924	18,029	25,572	20,211	20,305
11	Indiana	23,915	19,606	1,105	0	0	0	6,818	8,610	10,597	30,733	28,216	11,702
12	Illinois	37,362	10,478	9,505	5,200	1,153	550	11,288	13,627	13,664	53,850	25,258	23,719
13	Michigan	125,079	85,738	16,085	9,375	0	0	43,625	40,948	38,217	178,079	126,686	54,302
14	Wisconsin	68,766	19,001	7,837	25,518	3,460	3,885	139,971	122,905	104,848	234,255	145,366	116,570
	West North Central:												
15	Minnesota	80,172	71,656	6,040	22,000	10,280	10,280	72,365	51,040	32,920	174,537	132,976	49,240
16	Iowa	7,029	3,833	2,399	0	0	0	6,339	6,459	6,845	13,368	10,292	9,244
17	Missouri	1,902	2,002	1,000	0	0	0	3,745	3,734	3,481	5,647	5,736	4,481
18	North Dakota	0	100	100	0	0	0	655	447	396	655	547	496
19	South Dakota	6,913	2,205	845	0	0	0	861	991	1,081	7,774	3,196	1,926
20	Nebraska	5,884	2,954	1,820	0	0	0	7,565	7,350	7,338	13,449	10,304	9,158
21	Kansas	8,820	8,661	1,034	0	0	0	8,403	7,241	6,935	17,223	15,902	7,969
	South Atlantic:												
22	Delaware	826	285	0	0	0	0	5,144	5,229	5,328	5,970	5,514	5,328
23	Maryland and District of Columbia	3,223	1,347	275	0	0	0	13,666	12,304	11,206	16,889	13,651	11,481
24	Virginia	44,280	9,551	1,221	22,119	16,925	950	56,680	37,471	24,988	123,079	63,947	27,159
25	West Virginia	6,036	3,627	100	0	0	0	13,145	8,932	6,012	19,181	12,559	6,112
26	North Carolina	49,951	9,962	1,920	10,200	2,850	2,950	50,052	36,508	28,726	110,203	49,320	33,596
27	South Carolina	178,555	75,430	10,415	0	8,040	0	42,937	35,537	29,693	221,492	119,007	40,108
28	Georgia	51,957	36,335	6,121	30,530	5,797	5,470	29,014	28,570	26,074	111,501	70,702	37,665
29	Florida	5,700	0	0	1,400	1,400	1,400	203	150	117	7,303	1,550	1,517
	East South Central:												
30	Kentucky	0	0	30	0	0	0	5,841	5,067	4,461	5,841	5,067	4,491
31	Tennessee	27,750	1,240	619	0	0	0	9,646	9,864	10,428	37,396	11,104	11,047
32	Alabama	9,880	7,007	0	0	0	0	16,566	12,161	9,479	26,446	19,168	9,479
33	Mississippi	0	0	0	0	0	0	335	174	191	335	174	191
	West South Central:												
34	Arkansas	3,040	300	227	0	0	0	728	638	644	3,768	938	871
35	Louisiana	0	0	0	0	0	0	0	151	285	0	151	285
36	Oklahoma	2,135	0	0	0	0	0	690	327	128	2,825	327	128
37	Texas	3,503	2,762	1,104	0	0	0	1,653	2,043	1,989	5,156	4,805	3,093
	Mountain:												
38	Montana	102,885	56,987	24,000	770	0	250	15,645	12,314	10,076	119,300	69,301	34,326
39	Idaho	51,850	11,492	3,924	0	0	60	3,204	1,875	1,289	55,054	13,367	5,273
40	Wyoming	1,334	765	75	0	0	0	515	432	443	1,849	1,197	518
41	Colorado	77,005	25,580	12,750	5,200	1,880	250	1,025	1,693	1,854	83,230	29,153	14,854
42	New Mexico	817	513	50	0	0	0	29	104	151	846	617	201
43	Arizona	9,300	750	0	0	0	0	46	184	320	9,346	934	320
44	Utah	59,588	34,671	18,410	15,100	9,600	0	2,844	3,099	3,298	77,532	47,370	21,708
45	Nevada	12,540	6,260	1,470	0	0	0	169	552	826	12,709	6,812	2,296
	Pacific:												
46	Washington	77,591	56,118	17,238	192,050	4,900	1,325	10,119	6,696	5,526	279,760	67,714	24,089
47	Oregon	29,802	102,052	11,195	75,500	0	0	63,505	36,727	20,101	168,807	138,779	31,296
48	California	432,062	208,444	78,933	265	200	6,495	7,916	7,506	6,228	440,243	216,150	91,656
49	New England	208,501	130,731	62,171	35,010	14,116	5,843	816,289	718,028	643,127	1,059,800	862,875	711,141
50	Middle Atlantic	646,268	338,607	136,778	19,240	10,110	8,845	443,809	488,272	473,040	1,109,317	836,989	618,663
51	East North Central	263,982	136,860	36,208	41,923	5,863	5,035	216,584	203,014	185,355	522,489	345,737	226,598
52	West North Central	110,720	91,411	13,238	22,000	10,280	10,280	99,933	77,262	58,996	232,653	178,953	82,514
53	South Atlantic	340,528	136,537	20,052	64,249	35,012	10,770	210,841	164,701	132,144	615,618	336,250	162,966
54	East South Central	37,630	8,247	649	0	0	0	32,388	27,266	24,559	70,018	35,513	25,208
55	West South Central	8,678	3,062	1,331	0	0	0	3,071	3,159	3,046	11,749	6,221	4,377
56	Mountain	315,319	137,018	60,679	21,070	11,480	560	23,477	20,253	18,257	359,866	168,751	79,496
57	Pacific	539,455	366,614	107,366	267,815	5,100	7,820	81,540	50,929	31,855	888,810	422,643	147,041
	United States	2,471,081	1,349,087	438,472	471,307	91,961	49,153	1,927,932	1,752,884	1,570,379	4,870,320	3,193,932	2,058,004

NOTE.—The reduction from 1907 to 1912 in commercial and municipal central stations in the State of Oregon and the marked increase in street and electric railways for the same period in the States of Oregon and Washington arises from the fact that the Census Bureau classified the plants now operated by the Portland Railway, Light & Power Co. and by the Puget Sound Traction, Light & Power Co. as central stations in 1907 and as electric railway stations in 1912. Both should properly have been classified as central stations in 1912.

Figures for primary power in manufacturing plants are given in the Census for Manufactures 1910, for the years 1899, 1904, and 1909. Primary power for 1912, 1907, and 1902 has been estimated by assuming a uniform increase from 1899 to 1904 and from 1904 to 1909 and 1912.

TABLE 7.—WATER POWER: INSTALLED CAPACITY PER THOUSAND OF POPULATION IN 1912, 1907, AND 1902, IN COMMERCIAL AND MUNICIPAL CENTRAL STATIONS, STREET AND ELECTRIC RAILWAYS, AND MANUFACTURING PLANTS, BY STATES AND BY GEOGRAPHIC DIVISIONS, IN HORSEPOWER.

		Commercial and municipal central stations.			Street and electric railways.			Manufacturing plants.			Total.		
		1912	1907	1902	1912	1907	1902	1912	1907	1902	1912	1907	1902
	New England:												
1	Maine	92.9	54.6	18.5	33.9	9.6	4.7	387.2	324.2	263.1	514.0	388.4	286.3
2	New Hampshire	131.0	59.8	37.1	5.0	1.9	0	332.7	274.9	246.5	468.7	336.6	283.6
3	Vermont	98.3	80.8	47.1	13.0	7.8	.4	225.1	221.0	221.6	336.4	309.6	269.1
4	Massachusetts	7.0	5.2	3.1	.5	.5	.6	54.0	57.8	62.5	61.5	63.5	66.2
5	Rhode Island	4.3	4.4	4.2	0	0	0	57.6	59.9	63.7	61.9	64.3	67.9
6	Connecticut	16.7	17.1	6.9	.8	1.8	.7	67.4	67.3	70.3	84.9	86.2	77.9
	Middle Atlantic:												
7	New York	53.8	35.6	16.8	1.9	1.1	1.1	38.4	48.4	52.5	94.1	85.1	70.4
8	New Jersey	.6	.8	.5	0	0	0	7.6	8.1	9 4	8.2	8.9	9.9
9	Pennsylvania	16.6	4.2	1.1	.1	.1	0	7.3	7.4	7.9	24.0	11.7	9.0
	East North Central:												
10	Ohio	1.8	.4	.4	.4	.3	.1	3.0	3.7	4.2	5.2	4.4	4.7
11	Indiana	8.7	7.4	.4	0	0	0	2.5	3.3	4.2	11.2	10.7	4.6
12	Illinois	6.4	1.9	1.9	.9	.2	.1	2.0	2.6	2.7	9.3	4.7	4.7
13	Michigan	43.2	31.8	6.4	3.2	0	0	15.1	15.1	15.3	61.5	46.9	21.7
14	Wisconsin	28.7	8.4	3.7	10.7	1.5	1.8	58.5	54.5	49.4	97.9	64.4	54.9
	West North Central:												
15	Minnesota	37.3	36.1	3.3	10.2	5.2	5.6	33.7	25.7	18.2	81.2	67.0	27.1
16	Iowa	3.2	1.7	1.1	0	0	0	2.8	2.9	3.0	6.0	4.6	4.1
17	Missouri	.6	.6	.3	0	0	0	1.1	1.2	1.1	1.7	1.8	1.4
18	North Dakota	0	.2	.3	0	0	0	1.0	.9	1.0	1.0	1.1	1.3
19	South Dakota	11.1	4.1	1.9	0	0	0	1.3	1.9	2.5	12.4	6.0	4.4
20	Nebraska	4.8	2.6	1.7	0	0	0	6.2	6.3	6.7	11.0	8.9	8.4
21	Kansas	5.1	5.3	.7	0	0	0	4.8	4.5	4.6	9.9	9.8	5.3
	South Atlantic:												
	Delaware	4.0	1.4	0	0	0	0	24.9	26.5	28.3	28.9	27.9	28.3
22	Maryland and District of Columbia	1.9	.8	.2	0	0	0	8.3	7.8	7.5	10.2	8.6	7.7
23	Virginia	21.0	4.8	.6	10.5	8.4	.5	26.9	18.7	13.2	58.4	31.9	14.3
24	West Virginia	4.7	3.2	.1	0	0	0	10.3	7.7	5.9	15.0	10.9	6.0
25	North Carolina	22.0	4.7	1.0	4.5	1.4	1.5	21.9	17.2	14.6	48.4	23.3	17.1
26	South Carolina	114.8	51.4	7.6	0	5.5	0	27.6	24.3	21.5	142.4	81.2	29.1
27	Georgia	19.3	14.5	2.7	11.3	2.3	2.4	10.7	11.5	11.3	41.3	28.3	16.4
28	Florida	7.1	0	0	1.7	2.0	2.4	.3	.2	.2	9.1	2.2	2.6
29	East South Central:												
	Kentucky	0	0	0	0	0	0	2.5	2.3	2.1	2.5	2.3	2.1
30	Tennessee	12.5	.6	.3	0	0	0	4.3	4.6	5.1	16.8	5.2	5.4
31	Alabama	4.5	3.4	0	0	0	0	7.5	5.9	5.0	12.0	9.3	5.0
32	Mississippi	0	0	0	0	0	0	.2	.1	.1	.2	.1	.1
33	West South Central:												
	Arkansas	1.9	.2	.2	0	0	0	.4	.4	.4	2.3	.6	.6
34	Louisiana	0	0	0	0	0	0	0	.1	.2	0	.1	.2
35	Oklahoma	1.2	0	0	0	0	0	.3	.2	.1	1.5	.2	.1
36	Texas	.9	.8	.3	0	0	0	.4	.5	.7	1.3	1.3	1.0
37	Mountain:												
	Montana	253.6	168.4	88.5	1.9	0	.9	38.6	36.3	37.1	294.1	204.7	126.5
38	Idaho	143.2	41.2	20.0	0	0	.3	8.8	6.7	6.5	152.0	47.9	26.8
39	Wyoming	8.4	5.8	.7	0	0	0	3.3	3.4	4.3	11.7	9.2	5.0
40	Colorado	89.8	35.2	21.4	6.1	2.6	.4	1.2	2.4	3.2	97.1	40.2	25.0
41	New Mexico	2.3	1.8	.2	0	0	0	.1	.3	.7	2.4	2.1	.9
42	Arizona	41.8	4.1	0	0	0	0	.2	1.0	2.3	42.0	5.1	2.3
43	Utah	150.9	100.2	62.0	38.2	27.8	0	7.2	8.9	11.1	196.3	136.9	73.1
44	Nevada	138.2	88.5	29.0	0	0	0	1.9	7.8	16.4	140.1	96.3	45.4
45	Pacific:												
	Washington	60.5	58.1	26.5	149.8	5.1	2.0	7.9	6.9	8.6	218.2	70.1	37.1
46	Oregon	40.8	170.2	23.9	103.3	0	0	86.9	61.3	43.0	231.0	231.5	66.9
47	California	167.6	98.1	47.2	.1	.1	3.9	3.1	3.5	3.7	170.8	101.7	54.8
48													
	New England	30.8	20.8	10.7	5.2	2.2	1.0	120.6	114.4	111.0	156.6	137.4	122.7
49	Middle Atlantic	32.0	18.6	8.4	1.0	.6	.5	21.9	26.7	29.1	54.9	45.9	38.0
50	East North Central	14.1	7.8	2.2	2.2	.3	.3	11.5	11.5	11.3	27.8	19.6	13.8
51	West North Central	9.3	8.1	1.2	1.8	.9	1.0	8.4	6.9	5.6	19.5	15.9	7.8
52	South Atlantic	27.0	11.7	1.8	5.1	3.0	1.0	16.8	14.0	12.3	48.9	28.7	15.1
53	East South Central	4.4	1.0	.1	0	0	0	3.7	3.3	3.2	8.1	4.3	3.3
54	West South Central	.9	.4	.2	0	0	0	.4	.3	.4	1.3	.7	.6
55	Mountain	110.7	58.0	32.3	7.4	4.9	.3	8.3	8.5	9.8	126.4	71.4	42.4
56	Pacific	117.6	99.4	38.5	58.4	1.4	2.8	17.7	13.7	11.4	193.7	114.5	52.7
57													
	United States	25.9	15.4	5.5	4.9	1.0	.6	20.2	20.1	19.8	51.0	36.5	25.9

NOTE.—The reduction from 1907 to 1912 in commercial and municipal central stations in the State of Oregon and the marked increase in street and electric railways for the same period in the States of Oregon and Washington arises from the fact that the Census Bureau classified the plants now operated by the Portland Railway, Light & Power Co. and by the Puget Sound Traction, Light & Power Co. as central stations in 1907 and as electric railway stations in 1912. Both should properly have been classified as central stations in 1912.

Figures for primary power in manufacturing plants are given in the Census for Manufactures 1910, for the years 1899, 1904, and 1909. Primary power for 1912, 1907, and 1902 has been estimated by assuming a uniform increase from 1899 to 1904 and from 1904 to 1909 and 1912.

TABLE 8.—STEAM POWER: INSTALLED CAPACITY, 1912, 1907, AND 1902, IN COMMERCIAL AND MUNICIPAL CENTRAL STATIONS, STREET AND ELECTRIC RAILWAYS, AND MANUFACTURING PLANTS, BY STATES AND BY GEOGRAPHIC DIVISIONS, IN HORSEPOWER.

		Commercial and municipal central stations.			Street and electric railways.			Manufacturing plants			Total.		
		1912	1907	1902	1912	1907	1902	1912	1907	1902	1912	1907	1902
	New England:												
1	Maine	19,610	18,114	11,843	14,526	13,345	9,740	193,661	151,884	111,794	227,797	183,343	133,377
2	New Hampshire	25,386	20,265	12,640	1,920	2,830	4,015	161,141	124,452	97,425	188,447	147,547	114,080
3	Vermont	14,996	9,889	7,436	3,000	2,700	1,011	68,703	61,284	51,776	86,699	73,873	60,223
4	Massachusetts	323,128	170,457	115,195	268,387	194,759	134,448	921,242	777,008	644,890	1,512,757	1,142,224	894,533
5	Rhode Island	46,934	24,723	15,675	44,850	29,085	13,135	196,276	161,305	130,487	288,060	215,113	159,297
6	Connecticut	89,372	37,492	21,418	51,495	43,170	30,600	308,706	252,432	202,329	449,573	333,094	254,347
	Middle Atlantic:												
7	New York	638,932	413,388	192,623	634,490	405,691	231,025	1,219,105	988,725	774,179	2,492,527	1,807,804	1,197,827
8	New Jersey	235,585	90,480	67,325	29,098	91,935	31,140	615,407	472,509	344,584	880,090	654,924	443,049
9	Pennsylvania	465,968	264,205	166,739	287,500	295,561	137,955	2,812,523	2,360,179	1,888,346	3,565,991	2,919,945	2,193,040
	East North Central:												
10	Ohio	317,160	171,446	101,314	330,995	234,645	130,500	1,562,215	1,228,746	910,001	2,210,370	1,634,837	1,141,815
11	Indiana	159,888	95,927	52,035	121,580	80,139	26,805	515,486	403,890	320,930	796,954	579,956	399,770
12	Illinois	605,227	287,898	117,069	169,580	197,093	134,144	950,172	763,551	593,935	1,724,979	1,248,542	845,148
13	Michigan	250,477	97,866	48,614	58,905	56,845	46,691	519,178	429,748	353,188	828,560	584,459	448,493
14	Wisconsin	72,145	37,809	26,968	97,134	58,833	36,530	420,935	347,772	287,381	590,214	444,414	350,879
	West North Central:												
15	Minnesota	63,184	48,741	28,118	91,583	40,950	11,275	219,381	186,707	158,893	374,148	276,398	198,286
16	Iowa	67,444	42,342	36,705	56,462	32,350	20,075	134,760	113,296	96,724	258,666	187,988	153,504
17	Missouri	177,721	108,451	44,307	125,940	91,522	65,105	316,054	256,780	202,038	619,715	456,753	311,450
18	North Dakota	15,851	9,972	3,830	80	250	0	11,101	9,550	7,543	27,032	19,772	11,373
19	South Dakota	16,003	10,251	4,010	0	0	0	14,521	10,747	8,792	30,524	20,998	12,802
20	Nebraska	42,452	26,221	10,406	19,125	12,082	5,100	51,282	40,488	32,826	112,859	78,791	48,332
21	Kansas	82,372	38,035	12,249	8,705	6,860	3,715	221,548	134,980	72,031	312,625	179,875	87,995
	South Atlantic:												
22	Delaware	3,575	7,490	1,585	20,250	7,025	5,800	42,407	42,172	38,378	66,232	56,687	45,763
23	Maryland and District of Columbia	104,381	76,094	27,923	94,441	79,250	38,690	218,027	177,141	141,253	416,849	332,485	207,866
24	Virginia	15,120	5,008	4,222	78,785	50,038	15,860	267,734	190,348	130,107	361,639	245,394	150,189
25	West Virginia	34,064	16,876	10,100	25,740	21,113	12,050	220,818	160,439	108,221	280,622	198,428	130,371
26	North Carolina	14,952	10,721	4,646	16,930	9,575	4,072	325,211	236,433	159,011	357,093	256,729	167,729
27	South Carolina	39,486	8,535	10,790	12,110	11,576	5,875	214,424	178,804	126,824	266,020	198,915	143,489
28	Georgia	35,274	18,229	6,509	49,361	29,879	23,045	274,401	217,506	154,410	359,026	265,614	183,964
29	Florida	27,636	14,330	6,114	15,793	8,688	2,595	110,028	67,495	39,203	153,457	90,513	47,912
	East South Central:												
30	Kentucky	81,191	41,969	21,340	26,460	29,425	16,060	234,448	189,686	152,146	342,099	261,080	189,546
31	Tennessee	40,799	27,490	18,384	53,367	39,655	11,482	247,389	193,970	143,838	341,555	261,115	173,704
32	Alabama	24,574	19,377	7,595	48,930	26,215	12,350	356,958	309,153	233,263	430,462	354,745	253,208
33	Mississippi	30,457	15,497	7,660	9,850	10,864	2,555	258,041	165,152	91,543	298,348	191,513	101,758
	West South Central:												
34	Arkansas	22,599	13,641	8,206	16,744	10,541	2,365	204,424	143,971	95,826	243,767	168,153	106,397
35	Louisiana	26,175	22,872	13,767	43,745	43,431	13,550	382,745	297,120	222,444	452,665	363,423	249,761
36	Oklahoma	45,821	22,423	4,407	9,375	1,800	0	74,010	45,064	21,079	129,206	69,287	25,486
37	Texas	113,611	66,094	33,675	40,697	18,485	7,380	305,973	211,810	137,564	460,281	296,389	178,619
	Mountain:												
38	Montana	12,750	11,830	7,885	750	1,150	1,350	60,033	42,735	32,217	73,533	55,715	41,452
39	Idaho	4,525	2,202	1,480	0	0	0	47,759	27,375	10,691	52,284	29,577	12,171
40	Wyoming	10,162	4,360	2,654	0	0	0	8,720	4,965	2,901	18,882	9,325	5,555
41	Colorado	56,919	56,547	25,518	43,332	19,910	9,785	146,509	128,403	86,283	246,760	204,860	121,586
42	New Mexico	8,428	4,035	1,730	0	1,180	0	15,791	9,107	4,371	24,219	14,322	6,101
43	Arizona	12,775	6,926	1,890	600	0	250	43,412	28,047	14,358	56,787	34,973	16,498
44	Utah	1,000	1,279	2,050	26,186	2,590	900	39,077	22,255	10,340	66,263	26,124	13,290
45	Nevada	2,210	235	250	0	0	0	6,598	3,157	906	8,808	3,392	1,156
	Pacific:												
46	Washington	18,128	11,016	5,656	53,767	37,537	13,167	321,381	214,463	121,287	393,276	263,016	140,110
47	Oregon	15,879	24,581	6,603	33,950	0	4,300	146,283	89,551	48,501	196,112	114,132	59,404
48	California	414,206	159,644	55,237	33,046	60,955	31,717	217,735	177,387	133,983	664,987	397,986	220,937
49	New England	519,426	280,940	184,207	384,178	285,889	192,949	1,849,729	1,528,365	1,238,701	2,753,333	2,095,194	1,615,857
50	Middle Atlantic	1,340,485	768,073	426,687	951,088	793,187	400,120	4,647,035	3,821,413	3,007,109	6,938,608	5,382,673	3,833,916
51	East North Central	1,404,897	690,946	346,000	778,194	627,555	374,670	3,967,986	3,173,707	2,465,435	6,151,077	4,492,208	3,186,105
52	West North Central	465,027	284,013	139,625	301,895	184,014	105,270	968,647	752,548	578,847	1,735,569	1,220,575	823,742
53	South Atlantic	274,488	157,283	71,889	313,400	217,144	107,987	1,673,050	1,270,338	897,407	2,260,938	1,644,765	1,077,283
54	East South Central	177,021	104,333	54,979	138,607	106,159	42,447	1,096,836	857,961	620,790	1,412,464	1,068,453	718,216
55	West South Central	208,206	125,030	60,055	110,561	74,257	23,295	967,152	697,965	476,913	1,285,919	897,252	560,263
56	Mountain	108,769	87,414	43,457	70,868	24,830	12,285	367,899	266,044	162,067	547,536	378,288	217,809
57	Pacific	448,213	195,241	67,496	120,763	98,492	49,184	685,399	481,401	303,771	1,254,375	775,134	420,451
	United States	4,946,532	2,693,273	1,394,395	3,169,554	2,411,527	1,308,207	16,223,733	12,849,742	9,751,040	24,339,819	17,954,542	12,453,642

NOTE.—Figures for primary power in manufacturing plants are given in the Census for Manufactures, 1910, for the years 1899, 1904, and 1909. Primary power for 1912, 1907, and 1902 has been estimated by assuming a uniform increase from 1899 to 1904 and from 1904 to 1909 and 1912.

TABLE 9.—STEAM POWER: INSTALLED CAPACITY PER THOUSAND OF POPULATION IN 1912, 1907, AND 1902, IN COMMERCIAL AND MUNICIPAL CENTRAL STATIONS, STREET AND ELECTRIC RAILWAYS, AND MANUFACTURING PLANTS, BY STATES AND BY GEOGRAPHIC DIVISIONS, IN HORSEPOWER.

		Commercial and municipal central stations.			Street and electric railways.			Manufacturing plants.			Total.		
		1912	1907	1902	1912	1907	1902	1912	1907	1902	1912	1907	1902
	New England:												
1	Maine	26.0	24.9	16.8	19.3	18.3	13.8	257.2	208.4	158.7	302.5	251.6	189.3
2	New Hampshire	58.4	47.6	30.4	4.4	6.7	9.7	370.6	292.7	234.4	433.4	347.0	274.5
3	Vermont	41.8	28.0	21.5	8.4	7.7	2.9	191.5	173.8	149.5	241.7	209.6	173.9
4	Massachusetts	92.5	53.1	39.4	76.9	60.7	46.0	268.9	242.2	220.5	438.3	356.0	305.9
5	Rhode Island	82.7	48.4	34.7	78.9	57.0	29.0	346.5	316.0	288.3	507.1	421.4	352.0
6	Connecticut	76.9	35.5	22.5	44.4	40.9	32.1	265.9	230.0	212.6	387.2	315.4	267.2
	Middle Atlantic:												
7	New York	67.1	48.1	25.1	66.6	47.2	30.2	128.0	115.1	101.1	261.7	210.4	156.4
8	New Jersey	87.8	38.5	33.3	10.8	39.1	15.4	229.4	209.9	170.4	328.0	278.5	219.1
9	Pennsylvania	58.5	36.3	25.3	36.1	40.6	20.9	352.9	324.3	286.5	447.5	401.2	332.7
	East North Central:												
10	Ohio	64.7	37.3	23.7	67.5	51.1	30.4	318.7	267.3	212.3	450.9	355.7	266.4
11	Indiana	58.4	36.2	20.4	44.3	30.3	10.5	187.9	152.4	125.6	290.6	218.9	156.5
12	Illinois	104.0	53.3	23.4	29.1	36.4	26.9	163.3	141.2	118.9	296.4	230.9	169.2
13	Michigan	86.5	36.2	19.4	20.3	21.1	18.7	179.2	159.2	141.1	286.0	216.5	179.2
14	Wisconsin	30.1	16.8	12.7	40.6	26.0	17.2	175.9	153.9	135.2	246.6	196.7	165.1
	West North Central:												
15	Minnesota	29.4	24.6	15.4	42.6	20.6	6.2	102.2	94.1	87.4	174.2	139.3	109.0
16	Iowa	30.3	19.0	16.5	25.4	14.5	9.0	60.6	50.9	43.3	116.3	84.4	68.8
17	Missouri	53.3	33.5	14.1	37.8	28.2	20.7	94.8	79.2	64.2	185.9	140.9	99.0
18	North Dakota	25.0	19.8	10.3	.1	.5	0	17.5	18.9	20.1	42.6	39.2	30.4
19	South Dakota	25.6	19.3	9.1	0	0	0	23.3	20.2	20.0	48.9	39.5	29.1
20	Nebraska	34.8	22.7	9.5	15.7	10.4	4.7	42.0	35.0	30.0	92.5	68.1	44.2
21	Kansas	47.3	23.4	8.1	5.0	4.2	2.4	127.4	82.8	47.5	179.7	110.4	58.0
	South Atlantic:												
22	Delaware	17.3	37.9	8.4	98.2	35.6	30.8	205.5	213.7	203.7	321.0	287.2	242.9
23	Maryland and District of Columbia	62.8	48.2	18.6	56.8	50.1	25.8	131.2	112.0	94.2	250.8	210.3	138.6
24	Virginia	7.1	2.5	2.2	37.4	25.0	8.4	127.1	95.0	68.5	171.6	122.5	79.1
25	West Virginia	26.6	14.7	9.9	20.1	18.4	11.9	172.5	139.9	106.8	219.2	173.0	128.6
26	North Carolina	6.6	5.1	2.3	7.4	4.5	2.1	142.9	111.6	81.2	156.9	121.2	85.6
27	South Carolina	25.4	5.8	7.8	7.8	7.9	4.3	137.9	122.0	92.1	171.1	135.7	104.2
28	Georgia	13.1	7.3	2.9	18.3	12.0	10.0	101.7	87.0	67.1	133.1	106.3	80.0
29	Florida	34.4	20.8	10.6	19.7	12.6	4.5	137.1	97.9	68.1	191.2	131.3	83.2
	East South Central:												
30	Kentucky	35.0	18.6	9.8	11.4	13.1	7.4	100.9	84.3	69.9	147.3	116.0	87.1
31	Tennessee	18.4	12.9	8.9	24.0	18.5	5.6	111.3	90.7	70.0	153.7	122.1	84.5
32	Alabama	11.1	9.4	4.0	22.2	12.8	6.5	161.7	150.8	123.2	195.0	173.0	133.7
33	Mississippi	16.5	9.0	4.8	5.3	6.3	1.6	139.3	95.5	57.1	161.1	110.8	63.5
	West South Central:												
34	Arkansas	13.8	9.1	6.0	10.3	7.0	1.7	125.2	96.0	70.1	149.3	112.1	77.8
35	Louisiana	15.2	14.5	9.6	25.5	27.5	9.4	222.8	188.2	154.4	263.5	230.2	173.4
36	Oklahoma	24.7	15.9	4.5	5.1	1.3	0	40.0	31.9	21.7	69.8	49.1	26.2
37	Texas	27.8	18.0	10.4	10.0	5.1	2.3	74.8	57.9	42.6	112.6	81.0	55.3
	Mountain:												
38	Montana	31.5	34.9	29.0	1.8	3.4	5.0	147.9	126.3	118.8	181.2	164.6	152.8
39	Idaho	12.5	7.9	7.5	0	0	0	131.8	98.0	54.5	144.3	105.9	62.0
40	Wyoming	64.3	33.3	25.6	0	0	0	55.3	37.9	28.0	119.6	71.2	53.6
41	Colorado	66.4	78.0	42.9	50.6	27.4	16.5	170.9	176.9	145.2	287.9	282.3	204.6
42	New Mexico	23.6	13.9	7.8	0	4.1	0	44.3	31.4	19.5	67.9	49.4	27.3
43	Arizona	57.4	38.2	13.5	2.7	0	1.8	195.0	154.7	102.5	255.1	192.9	117.8
44	Utah	2.5	3.7	6.9	66.3	7.5	3.0	98.9	64.3	34.8	167.7	75.5	44.7
45	Nevada	24.4	3.3	4.9	0	0	0	72.7	44.6	18.0	97.1	47.9	22.9
	Pacific:												
46	Washington	14.2	11.4	8.7	41.9	38.9	20.3	250.7	222.1	186.7	306.8	272.4	215.7
47	Oregon	21.7	41.0	14.1	46.5	0	9.2	200.2	149.4	103.6	268.4	190.4	126.9
48	California	160.7	75.1	33.0	12.8	28.7	19.0	84.5	83.5	80.1	258.0	187.3	132.1
49	New England	76.7	44.7	31.8	56.8	45.5	33.3	273.3	243.4	213.7	406.8	333.6	278.8
50	Middle Atlantic	66.4	42.2	26.2	47.1	43.5	24.6	230.3	209.7	184.8	343.8	295.4	235.6
51	East North Central	74.9	39.3	21.0	41.5	35.6	22.8	211.5	180.2	149.8	327.9	255.1	193.6
52	West North Central	39.0	25.2	13.2	25.3	16.3	9.9	81.2	66.8	54.5	145.5	108.3	77.6
53	South Atlantic	21.8	13.4	6.6	24.9	18.6	10.0	132.9	108.6	83.1	179.6	140.6	99.7
54	East South Central	20.6	12.8	7.1	16.1	13.0	5.5	127.5	105.0	80.3	164.2	130.8	92.9
55	West South Central	22.4	15.4	8.6	11.9	9.1	3.3	104.2	85.6	68.1	138.5	110.1	80.0
56	Mountain	38.2	37.0	23.2	24.9	10.5	6.5	129.1	112.7	86.3	192.2	160.2	116.0
57	Pacific	97.7	52.9	24.2	26.3	26.7	17.6	149.3	130.5	108.9	273.3	210.1	150.7
	United States	51.8	30.7	17.6	33.2	27.6	16.5	169.8	146.9	122.8	254.8	205.2	156.9

NOTE.—Figures for primary power in manufacturing plants are given in the Census for Manufactures, 1910, for the years 1899, 1904, and 1909. Primary power for 1912, 1907, and 1902 has been estimated by assuming a uniform increase from 1899 to 1904 and from 1904 to 1909 and 1912.

TABLE 10.—GAS AND OIL ENGINES: INSTALLED CAPACITY, 1912, 1907, AND 1902, IN COMMERCIAL AND MUNICIPAL CENTRAL STATIONS, STREET AND ELECTRIC RAILWAYS, AND MANUFACTURING PLANTS, BY STATES AND BY GEOGRAPHIC DIVISIONS, IN HORSEPOWER.

		Commercial and municipal central stations.			Street and electric railways.			Manufacturing plants.			Total.		
		1912	1907	1902	1912	1907	1902	1912	1907	1902	1912	1907	1902
	New England:												
1	Maine	135	0	0	0	0	0	5,262	5,507	4,838	5,397	5,507	4,838
2	New Hampshire	1,905	1,115	50	0	0	0	2,658	7,633	7,713	4,563	8,748	7,763
3	Vermont	95	205	125	0	0	0	3,345	3,127	3,025	3,440	3,332	3,150
4	Massachusetts	3,172	1,097	85	2,700	2,700	0	47,949	41,131	31,912	53,821	44,928	31,997
5	Rhode Island	1,125	1,000	0	0	0	0	6,743	6,059	6,087	7,868	7,059	6,087
6	Connecticut	885	706	406	0	0	0	22,149	14,865	9,131	23,034	15,571	9,537
	Middle Atlantic:												
7	New York	6,471	3,315	2,005	2,715	1,975	100	135,149	128,604	97,625	144,335	133,894	99,731
8	New Jersey	2,360	1,328	431	0	0	0	35,245	26,157	19,186	37,605	27,485	19,617
9	Pennsylvania	17,733	7,469	1,783	4,660	3,050	1,000	211,002	158,691	97,192	233,395	169,210	99,975
	East North Central:												
10	Ohio	11,252	5,628	755	250	250	250	149,940	85,577	38,193	161,442	91,455	39,198
11	Indiana	1,700	1,295	1,097	340	0	0	163,217	76,868	20,741	165,257	78,163	21,838
12	Illinois	3,042	870	292	0	0	400	52,497	40,292	30,898	55,539	41,162	31,590
13	Michigan	1,626	603	184	0	0	0	18,538	15,106	11,376	20,164	15,709	11,560
14	Wisconsin	4,500	2,079	910	4,000	2,000	0	26,041	19,226	11,558	34,541	23,305	12,468
	West North Central:												
15	Minnesota	4,755	1,428	665	0	0	0	8,646	7,612	6,133	13,401	9,040	6,798
16	Iowa	2,658	564	400	0	0	0	10,199	7,580	5,827	12,857	8,144	6,227
17	Missouri	2,472	963	11	0	0	0	14,122	10,892	8,216	16,594	11,855	8,227
18	North Dakota	318	205	0	0	0	0	1,741	1,060	706	2,059	1,265	706
19	South Dakota	4,832	528	202	0	0	0	3,607	2,241	1,381	8,439	2,769	1,583
20	Nebraska	3,832	845	82	0	0	0	5,845	3,926	2,624	9,677	4,771	2,706
21	Kansas	7,136	1,678	0	3,575	1,125	0	34,006	17,361	5,938	44,717	20,164	5,938
	South Atlantic:												
22	Delaware	250	0	0	0	0	0	653	924	1,145	903	924	1,145
23	Maryland and Dist. of Columbia	823	130	80	0	0	0	8,491	9,209	8,372	9,314	9,339	8,452
24	Virginia	185	60	0	0	900	0	4,943	3,561	2,812	5,128	4,521	2,812
25	West Virginia	3,085	925	620	0	350	0	22,821	13,049	5,195	25,906	14,324	5,815
26	North Carolina	80	0	0	1,600	0	0	5,837	3,846	2,212	7,517	3,846	2,212
27	South Carolina	455	150	0	0	0	0	5,619	2,419	1,905	6,074	2,569	1,905
28	Georgia	720	140	0	3,000	3,000	0	7,173	4,116	1,821	10,893	7,256	1,821
29	Florida	500	40	0	675	825	0	2,662	1,198	606	3,837	2,063	606
	East South Central:												
30	Kentucky	576	15	45	0	0	0	7,516	4,893	2,819	8,092	4,908	2,864
31	Tennessee	445	0	0	0	0	0	3,012	2,152	1,444	3,457	2,152	1,444
32	Alabama	19	20	25	0	0	0	7,807	4,021	1,439	7,826	4,041	1,464
33	Mississippi	40	25	0	0	0	0	1,689	843	307	1,729	868	307
	West South Central:												
34	Arkansas	221	12	0	0	0	0	2,244	1,305	689	2,465	1,317	689
35	Louisiana	990	420	0	0	0	0	7,904	4,948	2,295	8,894	5,368	2,295
36	Oklahoma	5,966	200	0	300	0	0	13,266	5,728	829	19,532	5,928	829
37	Texas	9,502	3,058	108	375	0	0	24,405	10,798	2,087	34,282	13,856	2,195
	Mountain:												
38	Montana	75	0	2	0	0	0	857	426	403	932	426	405
39	Idaho	0	0	50	0	0	0	283	248	147	283	248	197
40	Wyoming	100	0	500	0	0	0	13	295	316	113	295	816
41	Colorado	80	300	0	0	0	0	1,767	1,606	1,447	1,847	1,906	1,447
42	New Mexico	1,770	0	0	0	0	0	285	419	385	2,055	419	385
43	Arizona	0	70	650	0	0	0	1,115	1,763	1,470	1,115	1,833	2,120
44	Utah	0	0	0	0	0	0	0	641	671	0	641	671
45	Nevada	670	485	0	0	0	0	596	480	262	1,266	965	262
	Pacific:												
46	Washington	165	90	0	0	0	0	1,599	1,686	1,218	1,764	1,776	1,218
47	Oregon	334	182	0	0	0	0	572	495	475	906	677	475
48	California	1,980	16,585	618	0	160	175	11,852	11,043	9,318	13,832	27,788	10,111
49	New England	7,317	4,123	666	2,700	2,700	0	88,106	78,322	62,706	98,123	85,145	63,372
50	Middle Atlantic	26,564	12,112	4,219	7,375	5,025	1,100	381,396	313,452	214,004	415,335	330,589	219,323
51	East North Central	22,120	10,475	3,238	4,590	2,250	650	410,233	237,069	112,766	436,943	249,794	116,654
52	West North Central	26,003	6,211	1,360	3,575	1,125	0	78,166	50,672	30,825	107,744	58,008	32,185
53	South Atlantic	6,098	1,445	700	5,275	5,075	0	58,199	38,322	24,068	69,572	44,842	24,768
54	East South Central	1,080	60	70	0	0	0	20,024	11,909	6,009	21,104	11,969	6,079
55	West South Central	16,679	3,690	108	675	0	0	47,819	22,779	5,900	65,173	26,469	6,008
56	Mountain	2,695	855	1,202	0	0	0	4,916	5,878	5,101	7,611	6,733	6,303
57	Pacific	2,479	16,857	618	0	160	175	14,023	13,224	11,011	16,502	30,241	11,804
	United States	111,035	55,828	12,181	24,190	16,335	1,925	1,102,882	771,627	472,390	1,238,107	843,790	486,496

NOTE.—Figures for primary power in manufacturing plants are given in the Census for Manufactures, 1910, for the years 1899, 1904, and 1909. Primary power for 1912, 1907, and 1902 has been estimated by assuming a uniform increase from 1899 to 1904, and from 1904 to 1909 and 1912.

TABLE 11.—GAS AND OIL ENGINES: INSTALLED CAPACITY PER THOUSAND OF POPULATION IN GAS AND OIL ENGINES IN COMMERCIAL AND MUNICIPAL CENTRAL STATIONS, STREET AND ELECTRIC RAILWAYS, AND MANUFACTURING PLANTS, BY STATES AND BY GEOGRAPHIC DIVISIONS, IN HORSEPOWER.

		Commercial and municipal central stations.			Street and electric railways.			Manufacturing plants.			Total.		
		1912	1907	1902	1912	1907	1902	1912	1907	1902	1912	1907	1902
	New England:												
1	Maine	0.2	0	0	0	0	0	7.0	7.6	6.9	7.2	7.6	6.9
2	New Hampshire	4.4	2.6	.1	0	0	0	6.1	18.0	18.6	10.5	20.6	18.7
3	Vermont	.3	.6	.4	0	0	0	9.3	8.8	8.7	9.6	9.4	9.1
4	Massachusetts	.9	.4	0	.8	.8	0	13.7	12.8	10.9	15.4	14.0	10.9
5	Rhode Island	2.0	2.0	0	0	0	0	11.8	11.8	13.4	13.8	13.8	13.4
6	Connecticut	.8	.7	.4	0	0	0	19.0	14.0	9.6	19.8	14.8	10.0
	Middle Atlantic:												
7	New York	.7	.4	.3	.3	.2	0	14.2	15.0	12.7	15.2	15.6	13.0
8	New Jersey	.9	.6	.2	0	0	0	13.1	11.1	9.5	14.0	11.7	9.7
9	Pennsylvania	2.2	1.0	.2	.6	.4	.2	26.5	21.8	29.3	14.8	23.2	15.2
	East North Central:												
10	Ohio	2.2	1.2	.1	.1	.1	.1	30.6	18.6	8.9	32.9	19.9	9.1
11	Indiana	.6	.5	.4	.1	0	0	59.6	29.0	8.2	60.3	29.5	8.6
12	Illinois	.5	.2	0	0	0	.1	9.0	7.4	6.2	9.5	7.6	6.3
13	Michigan	.6	.2	.1	0	0	0	6.4	5.6	4.5	7.0	5.8	4.6
14	Wisconsin	1.9	.9	.4	1.7	.9	0	10.8	8.5	5.5	14.4	10.3	5.9
	West North Central:												
15	Minnesota	2.2	.7	.4	0	0	0	4.0	3.9	3.3	6.2	4.6	3.7
16	Iowa	1.2	.3	.2	0	0	0	4.6	3.4	2.6	5.8	3.7	2.8
17	Missouri	.7	.3	0	0	0	0	4.3	3.4	2.6	5.0	3.7	2.6
18	North Dakota	.5	.4	0	0	0	0	2.7	2.1	1.9	3.2	2.5	1.9
19	South Dakota	7.7	1.0	.5	0	0	0	5.8	4.2	3.1	13.5	5.2	3.6
20	Nebraska	3.1	.7	.1	0	0	0	4.8	3.4	2.4	7.9	4.1	2.5
21	Kansas	4.1	1.0	0	2.1	.7	0	19.5	10.7	3.9	25.7	12.4	3.9
	South Atlantic:												
22	Delaware	1.2	0	0	0	0	0	3.2	4.7	6.1	4.4	4.7	6.1
23	Maryland and District of Columbia	.5	.1	.1	0	0	0	5.1	5.8	5.5	5.6	5.9	5.6
24	Virginia	.1	.1	0	0	.4	0	2.3	1.8	1.5	2.4	2.3	1.5
25	West Virginia	2.4	.8	.6	0	.3	0	17.8	11.4	5.1	20.2	12.5	5.7
26	North Carolina	0	0	0	.7	0	0	2.6	1.8	1.1	3.3	1.8	1.1
27	South Carolina	.3	.1	0	0	0	0	3.6	1.6	1.4	3.9	1.8	1.4
28	Georgia	.3	.1	0	1.1	1.2	0	2.6	1.6	.8	4.0	2.9	.8
29	Florida	.7	.1	0	.8	1.2	0	3.3	1.7	1.0	4.8	3.0	1.0
	East South Central:												
30	Kentucky	.2	0	0	0	0	0	3.3	2.2	1.3	3.5	2.2	1.3
31	Tennessee	.2	0	0	0	0	0	1.4	1.0	.7	1.6	1.0	.7
32	Alabama	0	0	0	0	0	0	3.6	2.0	.8	3.6	2.0	.8
33	Mississippi	0	0	0	0	0	0	.9	.5	.2	.9	.5	.2
	West South Central:												
34	Arkansas	.1	0	0	0	0	0	1.4	.9	.5	1.5	.9	.5
35	Louisiana	.6	.3	0	0	0	0	4.6	3.1	1.6	5.2	3.4	1.6
36	Oklahoma	3.2	.1	0	.2	0	0	7.2	4.1	.8	10.6	4.2	.8
37	Texas	2.3	.8	0	.1	0	0	6.0	3.0	.7	8.4	3.8	.7
	Mountain:												
38	Montana	.2	0	0	0	0	0	2.1	1.3	1.5	2.3	1.3	1.5
39	Idaho	0	0	.3	0	0	0	.8	.9	.7	.8	.9	1.0
40	Wyoming	.6	0	4.8	0	0	0	.1	2.2	3.1	.7	2.2	7.9
41	Colorado	.1	.4	0	0	0	0	2.1	2.2	2.4	2.2	2.6	2.4
42	New Mexico	5.0	0	0	0	0	0	.8	1.4	1.7	5.8	1.4	1.7
43	Arizona	0	4	4.6	0	0	0	5.0	9.7	10.5	5.0	10.1	15.1
44	Utah	0	0	0	0	0	0	0	1.8	2.3	0	1.8	2.3
45	Nevada	7.4	6.9	0	0	0	0	6.6	6.8	5.2	14.0	13.6	5.2
	Pacific:												
46	Washington	.1	.1	0	0	0	0	1.3	1.7	1.9	1.4	1.8	1.9
47	Oregon	.5	.3	0	0	0	0	.7	.8	1.0	1.2	1.1	1.0
48	California	.8	7.8	.4	0	.1	.1	4.6	5.2	5.5	5.4	13.1	6.0
49	New England	1.1	.7	.1	.4	.4	0	13.0	12.5	10.8	14.5	13.6	10.9
50	Middle Atlantic	1.3	.6	.2	.4	.3	.1	18.9	17.2	13.2	20.6	18.1	13.5
51	East North Central	1.2	.6	.2	.2	.1	0	21.9	13.5	6.9	23.3	14.2	7.1
52	West North Central	2.2	.6	.1	.3	.1	0	6.5	4.4	2.9	9.0	5.2	3.0
53	South Atlantic	.5	.2	.1	.4	.4	0	4.6	3.2	2.2	5.5	3.8	2.3
54	East South Central	.1	0	0	0	0	0	2.4	1.5	.8	2.4	1.5	.8
55	West South Central	1.8	.5	0	.1	0	0	5.1	2.8	.9	7.0	3.2	.9
56	Mountain	.9	.4	.6	0	0	0	1.8	2.4	2.8	2.7	2.8	3.4
57	Pacific	.5	4.6	.2	0	0	.1	3.1	3.6	3.9	3.6	8.2	4.2
	United States	1.1	.6	.2	.3	.2	0	11.6	8.8	5.9	13.0	9.6	6.1

NOTE.—Figures for primary power in manufacturing plants are given in the Census for Manufactures 1910, for the years 1899, 1904, and 1909. Primary power for 1912, 1907, and 1902 has been estimated by assuming a uniform increase from 1899 to 1904 and from 1904 to 1909 and 1912.

TABLE 12.—COMMERCIAL CENTRAL STATIONS, PRIMARY POWER IN 1912, 1907, AND 1902; STEAM POWER, WATER POWER, AND GAS POWER, BY STATES AND BY GEOGRAPHIC DIVISIONS, IN HORSEPOWER.

		Water power.			Steam power.			Gas power.			Total power.		
		1912	1907	1902	1912	1907	1902	1912	1907	1902	1912	1912	1902
	New England:												
1	Maine	68,300	38,021	12,671	18,760	17,614	11,643	135	0	0	87,195	55,635	24,314
2	New Hampshire	56,537	24,799	15,406	24,541	19,955	12,490	1,905	1,115	50	82,983	45,869	27,946
3	Vermont	30,406	24,484	13,075	13,096	8,929	7,196	95	205	125	43,597	33,618	20,396
4	Massachusetts	23,283	15,596	8,808	299,206	156,165	109,065	2,214	769	85	324,703	172,530	117,958
5	Rhode Island	2,440	2,263	1,925	46,834	24,623	15,575	1,125	1,000	0	50,399	27,886	17,500
6	Connecticut	19,058	17,955	6,565	81,175	33,677	20,518	130	21	406	100,363	51,653	27,489
	Middle Atlantic:												
7	New York	510,521	303,905	128,271	628,486	402,924	187,137	5,301	3,085	2,005	1,144,308	709,914	317,413
8	New Jersey	1,457	1,682	1,005	233,104	88,948	66,240	2,200	1,275	431	236,761	91,905	67,676
9	Pennsylvania	131,699	30,578	6,703	452,767	251,675	159,089	16,088	6,743	1,587	600,554	288,996	167,379
	East North Central:												
10	Ohio	8,635	1,682	1,326	282,914	143,699	83,669	7,917	4,303	755	299,466	149,684	85,750
11	Indiana	23,915	19,075	600	129,051	76,352	39,631	1,220	955	742	154,186	96,382	40,973
12	Illinois	9,242	10,478	9,505	582,506	257,353	95,940	2,882	568	242	594,630	268,399	105,687
13	Michigan	115,852	81,509	12,915	213,813	70,860	32,060	899	334	40	330,564	152,703	45,015
14	Wisconsin	66,576	17,431	7,423	61,053	29,584	24,183	3,898	2,004	860	131,527	49,019	32,466
	West North Central:												
15	Minnesota	78,960	70,160	5,125	45,091	33,273	19,176	2,867	1,067	560	126,918	104,500	24,861
16	Iowa	6,639	3,478	2,399	55,941	33,052	30,829	1,183	398	400	63,763	36,928	33,628
17	Missouri	1,902	2,002	1,000	161,143	96,475	37,421	2,230	893	11	165,275	99,370	38,432
18	North Dakota	0	100	100	13,651	8,547	2,870	318	205	0	13,969	8,852	2,970
19	South Dakota	6,913	2,205	845	14,813	8,715	3,380	3,404	296	145	25,130	11,216	4,370
20	Nebraska	5,728	2,954	1,820	32,611	22,376	8,975	2,067	459	82	40,406	25,789	10,877
21	Kansas	8,820	8,461	974	68,389	31,091	10,771	4,047	1,301	0	81,756	40,853	11,745
	South Atlantic:												
22	Delaware	826	285	0	1,955	6,150	773	250	0	0	3,031	6,435	773
23	Maryland and District of Columbia	3,083	1,347	275	100,432	73,674	26,963	758	95	80	104,273	75,116	27,318
24	Virginia	38,474	7,098	1,041	9,720	3,602	3,190	185	60	0	48,379	10,760	4,231
25	West Virginia	6,036	3,627	100	32,534	15,301	8,649	2,920	925	620	41,490	19,853	9,369
26	North Carolina	49,000	9,676	1,780	6,078	4,232	2,744	50	0	0	55,128	13,908	4,524
27	South Carolina	178,555	75,430	10,415	35,566	5,930	9,530	395	150	0	214,516	81,510	19,945
28	Georgia	51,467	36,155	5,989	18,631	8,445	3,853	720	140	0	70,818	44,740	9,842
29	Florida	5,700	0	0	10,469	6,401	4,229	465	0	0	16,634	6,401	4,229
	East South Central:												
30	Kentucky	0	0	30	73,696	37,385	19,460	556	15	45	74,252	37,400	19,535
31	Tennessee	27,450	1,060	439	29,979	20,850	14,793	220	0	0	57,649	21,910	15,232
32	Alabama	9,005	6,675	0	19,034	15,171	6,660	15	20	25	28,054	21,866	6,685
33	Mississippi	0	0	0	19,970	7,330	4,775	0	25	0	19,970	7,355	4,775
	West South Central:												
34	Arkansas	3,040	300	227	16,769	10,732	7,116	71	12	0	19,880	11,044	7,343
35	Louisiana	0	0	0	20,665	18,585	12,387	625	420	0	21,290	19,005	12,387
36	Oklahoma	1,835	0	0	34,785	20,228	4,045	5,320	200	0	41,940	20,428	4,045
37	Texas	3,383	2,762	1,104	105,961	63,154	31,430	9,339	3,058	108	118,683	68,974	32,642
	Mountain:												
38	Montana	102,885	56,987	24,000	11,825	11,480	7,635	75	0	2	114,785	68,467	31,637
39	Idaho	50,750	11,292	3,924	4,525	2,117	1,480	0	0	50	55,275	13,409	5,454
40	Wyoming	1,298	765	75	9,922	4,360	2,654	100	0	500	11,320	5,125	3,229
41	Colorado	76,205	25,580	12,750	54,804	55,577	25,398	80	300	0	131,089	81,457	38,148
42	New Mexico	817	513	50	8,128	4,035	1,730	1,340	0	0	10,285	4,548	1,780
43	Arizona	9,300	750	0	12,775	6,926	1,890	0	70	650	22,075	7,746	2,540
44	Utah	55,812	32,161	18,285	525	1,069	2,050	0	0	0	56,337	33,230	20,335
45	Nevada	12,540	6,260	1,470	2,210	235	250	670	485	0	15,420	6,980	1,720
	Pacific:												
46	Washington	20,356	51,078	17,238	17,738	10,647	5,056	165	90	0	38,259	61,815	22,294
47	Oregon	25,808	101,877	11,118	15,324	24,234	6,367	210	100	0	41,342	126,211	17,485
48	California	430,312	208,244	78,483	406,401	154,614	53,577	1,980	16,585	618	838,693	379,443	132,678
49	New England	200,024	123,118	58,450	483,612	260,963	176,487	5,604	3,110	666	689,240	387,191	235,603
50	Middle Atlantic	643,677	336,165	135,979	1,314,357	743,547	412,466	23,589	11,103	4,023	1,981,623	1,090,815	552,468
51	East North Central	224,220	130,175	31,769	1,269,337	577,848	275,483	16,816	8,164	2,639	1,510,373	716,187	309,891
52	West North Central	108,962	89,360	12,263	392,139	233,529	113,422	16,116	4,619	1,198	517,217	327,508	126,883
53	South Atlantic	333,141	133,618	19,600	215,385	123,735	59,931	5,743	1,370	700	554,269	258,723	80,231
54	East South Central	36,455	7,735	469	142,679	80,736	45,688	791	60	70	179,925	88,531	46,227
55	West South Central	8,258	3,062	1,331	178,180	112,699	54,978	15,355	3,690	108	201,793	119,451	56,417
56	Mountain	309,607	134,308	60,554	104,714	85,799	43,087	2,265	855	1,202	416,586	220,962	104,843
57	Pacific	476,476	361,199	106,839	439,463	189,495	65,000	2,355	16,775	618	918,294	567,469	172,457
	United States	2,340,820	1,318,740	427,254	4,539,866	2,408,351	1,246,542	88,634	49,746	11,224	6,969,320	3,776,837	1,685,020

NOTE.—The reduction from 1907 to 1912 in the States of Oregon and Washington arises from the fact that the Census Bureau classified the plants now operated by the Portland Railway, Light & Power Co. and by the Puget Sound Traction, Light & Power Co. as central stations in 1907 and as electric railway stations in 1912. Both should properly have been classified as central stations in 1912.

The term "Steam power" includes steam engines and steam turbines; "Water power," water wheels, turbines, and motors; and "Gas power," internal combustion engines using either gas or oil fuel.

TABLE 13.—MUNICIPAL CENTRAL STATIONS. PRIMARY POWER IN 1912, 1907, AND 1902: STEAM POWER, WATER POWER, AND GAS POWER, BY STATES AND BY GEOGRAPHIC DIVISIONS, IN HORSEPOWER.

		Water power.			Steam power.			Gas power.			Total power.		
		1912	1907	1902	1912	1907	1902	1912	1907	1902	1912	1907	1902
	New England:												
1	Maine	1,638	1,745	375	850	500	200	0	0	0	2,488	2,245	575
2	New Hampshire	400	605	0	845	310	150	0	0	0	1,245	915	150
3	Vermont	4,866	3,988	3,221	1,900	960	240	0	0	0	6,766	4,948	3,461
4	Massachusetts	1,197	1,185	125	23,922	14,292	6,130	958	328	0	26,077	15,805	6,255
5	Rhode Island	0	0	0	100	100	100	0	0	0	100	100	100
6	Connecticut	376	90	0	8,197	3,815	900	755	685	0	9,328	4,590	900
	Middle Atlantic:												
7	New York	1,885	2,045	514	10,446	10,464	5,486	1,170	230	0	13,501	12,739	6,000
8	New Jersey	112	112	0	2,481	1,532	1,085	160	53	0	2,753	1,697	1,085
9	Pennsylvania	594	285	285	13,201	12,530	7,650	1,645	726	196	15,440	13,541	8,131
	East North Central:												
10	Ohio	225	355	350	34,246	27,747	17,645	3,335	1,325	0	37,806	29,427	17,995
11	Indiana	0	531	505	30,837	19,575	12,404	480	340	355	31,317	20,446	13,264
12	Illinois	28,120	0	0	22,721	30,545	21,129	160	302	50	51,001	30,847	21,179
13	Michigan	9,227	4,229	3,170	36,664	27,006	16,554	727	269	144	46,618	31,504	19,868
14	Wisconsin	2,190	1,570	414	11,092	8,225	2,785	602	75	50	13,884	9,870	3,249
	West North Central:												
15	Minnesota	1,212	1,496	915	18,093	15,468	8,942	1,888	361	105	21,193	17,325	9,962
16	Iowa	390	355	0	11,503	9,290	5,876	1,475	166	0	13,368	9,811	5,876
17	Missouri	0	0	0	16,578	11,976	6,886	242	70	0	16,820	12,046	6,886
18	North Dakota	0	0	0	2,200	1,425	960	0	0	0	2,200	1,425	960
19	South Dakota	0	0	0	1,190	1,536	630	1,428	232	57	2,618	1,768	687
20	Nebraska	156	0	0	9,841	3,845	1,431	1,765	386	0	11,762	4,231	1,431
21	Kansas	0	200	60	13,483	6,944	1,478	3,089	377	0	16,572	7,521	1,538
	South Atlantic:												
22	Delaware	0	0	0	1,620	1,340	812	0	0	0	1,620	1,340	812
23	Maryland and District of Columbia	140	0	0	3,949	2,420	960	65	35	0	4,154	2,455	960
24	Virginia	5,806	2,453	180	5,400	1,406	1,032	0	0	0	11,206	3,859	1,212
25	West Virginia	0	0	0	1,530	1,575	1,451	165	0	0	1,695	1,575	1,451
26	North Carolina	951	286	140	8,874	6,489	1,902	30	0	0	9,855	6,775	2,042
27	South Carolina	0	0	0	3,920	2,605	1,260	60	0	0	3,980	2,605	1,260
28	Georgia	490	180	132	16,643	9,784	2,656	0	0	0	17,133	9,964	2,788
29	Florida	0	0	0	17,167	7,929	1,885	35	40	0	17,202	7,969	1,885
	East South Central:												
30	Kentucky	0	0	0	7,495	4,584	1,880	20	0	0	7,515	4,584	1,880
31	Tennessee	300	180	180	10,820	6,640	3,591	225	0	0	11,345	6,820	3,771
32	Alabama	875	332	0	5,540	4,206	935	4	0	0	6,419	4,538	935
33	Mississippi	0	0	0	10,487	8,167	2,885	40	0	0	10,527	8,167	2,885
	West South Central:												
34	Arkansas	0	0	0	5,830	2,909	1,090	150	0	0	5,980	2,909	1,090
35	Louisiana	0	0	0	5,510	4,287	1,380	365	0	0	5,875	4,287	1,380
36	Oklahoma	300	0	0	11,036	2,195	362	646	0	0	11,982	2,195	362
37	Texas	120	0	0	7,650	2,940	2,245	163	0	0	7,933	2,940	2,245
	Mountain:												
38	Montana	0	0	0	925	350	250	0	0	0	925	350	250
39	Idaho	1,100	200	0	0	85	0	0	0	0	1,100	285	0
40	Wyoming	36	0	0	240	0	0	0	0	0	276	0	0
41	Colorado	800	0	0	2,115	970	120	0	0	0	2,915	970	120
42	New Mexico	0	0	0	300	0	0	430	0	0	730	0	0
43	Arizona	0	0	0	0	0	0	0	0	0	0	0	0
44	Utah	3,776	2,510	125	475	210	0	0	0	0	4,251	2,720	125
45	Nevada	0	0	0	0	0	0	0	0	0	0	0	0
	Pacific:												
46	Washington	57,235	5,040	0	390	369	600	0	0	0	57,625	5,409	600
47	Oregon	3,994	175	77	555	347	236	124	82	0	4,673	604	313
48	California	1,750	200	450	7,805	5,030	1,660	0	0	0	9,555	5,230	2,110
49	New England	8,477	7,613	3,721	35,814	19,977	7,720	1,713	1,013	0	46,004	28,603	11,441
50	Middle Atlantic	2,591	2,442	799	26,128	24,526	14,221	2,975	1,009	196	31,694	27,977	15,216
51	East North Central	39,762	6,685	4,439	135,560	113,098	70,517	5,304	2,311	599	180,626	122,094	75,555
52	West North Central	1,758	2,051	975	72,888	50,484	26,203	9,887	1,592	162	84,533	54,127	27,340
53	South Atlantic	7,387	2,919	452	59,103	33,548	11,958	355	75	0	66,845	36,542	12,410
54	East South Central	1,175	512	180	34,342	23,597	9,291	289	0	0	35,806	24,109	9,471
55	West South Central	420	0	0	30,026	12,331	5,077	1,324	0	0	31,770	12,331	5,077
56	Mountain	5,712	2,710	125	4,055	1,615	370	430	0	0	10,197	4,325	495
57	Pacific	62,979	5,415	527	8,750	5,746	2,496	124	82	0	71,853	11,243	3,023
	United States	130,261	30,347	11,218	406,666	284,922	147,853	22,401	6,082	957	559,328	321,351	160,028

NOTE.—The term "Steam power" includes steam engines and steam turbines; "Water power," water wheels, turbines, and motors; and "Gas power," internal combustion engines using either gas or oil fuel.

TABLE 14.—STREET AND ELECTRIC RAILWAYS, PRIMARY POWER IN 1912, 1907, AND 1902; STEAM POWER, WATER POWER, AND GAS POWER, BY STATES AND BY GEOGRAPHIC DIVISIONS, IN HORSEPOWER.

		Water power.			Steam power.			Gas power.			Total power.		
		1912	1907	1902	1912	1907	1902	1912	1907	1902	1912	1907	1902
	New England:												
1	Maine	25,564	7,000	3,325	14,526	13,345	9,740	0	0	0	40,090	20,345	13,065
2	New Hampshire	2,182	800	0	1,920	2,830	4,015	0	0	0	4,102	3,630	4,015
3	Vermont	4,655	2,750	140	3,000	2,700	1,011	0	0	0	7,655	5,450	1,151
4	Massachusetts	1,709	1,628	1,732	268,387	194,759	134,448	2,700	2,700	0	272,796	199,087	136,180
5	Rhode Island	0	0	0	44,850	29,085	13,135	0	0	0	44,850	29,085	13,135
6	Connecticut	900	1,938	646	51,495	43,170	30,600	0	0	0	52,395	45,108	31,246
	Middle Atlantic:												
7	New York	18,515	9,485	8,645	634,490	405,691	231,025	2,715	1,975	100	655,720	417,151	239,770
8	New Jersey	0	0	0	29,098	91,935	31,140	0	0	0	29,098	91,935	31,140
9	Pennsylvania	725	625	200	287,500	295,561	137,955	4,660	3,050	1,000	292,885	299,236	139,155
	East North Central:												
10	Ohio	1,850	1,250	600	330,995	234,645	130,500	250	250	250	333,075	236,145	131,350
11	Indiana	0	0	0	121,580	80,139	26,805	340	0	0	121,920	80,139	26,805
12	Illinois	5,200	1,153	550	169,580	197,093	134,144	0	0	400	174,780	198,246	135,094
13	Michigan	9,375	0	0	58,905	56,845	46,691	0	0	0	68,280	56,845	46,691
14	Wisconsin	25,518	3,460	3,885	97,134	58,833	36,530	4,000	2,000	0	126,652	64,293	40,415
	West North Central:												
15	Minnesota	22,000	10,280	10,280	91,583	40,950	11,275	0	0	0	113,583	51,230	21,555
16	Iowa	0	0	0	56,462	32,350	20,075	0	0	0	56,462	32,350	20,075
17	Missouri	0	0	0	125,940	91,522	65,105	0	0	0	125,940	91,522	65,105
18	North Dakota	0	0	0	80	250	0	0	0	0	80	250	0
19	South Dakota	0	0	0	0	0	0	0	0	0	0	0	0
20	Nebraska	0	0	0	19,125	12,082	5,100	0	0	0	19,125	12,082	5,100
21	Kansas	0	0	0	8,705	6,860	3,715	3,575	1,125	0	12,280	7,985	3,715
	South Atlantic:												
22	Delaware	0	0	0	20,250	7,025	5,800	0	0	0	20,250	7,025	5,800
23	Maryland and District of Columbia	0	0	0	94,441	79,250	38,690	0	0	0	94,441	79,250	38,690
24	Virginia	22,119	16,925	950	78,785	50,038	15,860	0	900	0	100,904	67,863	16,810
25	West Virginia	0	0	0	25,740	21,113	12,050	0	350	0	25,740	21,463	12,050
26	North Carolina	10,200	2,850	2,950	16,930	9,575	4,072	1,600	0	0	28,730	12,425	7,022
27	South Carolina	0	8,040	0	12,110	11,576	5,875	0	0	0	12,110	19,616	5,875
28	Georgia	30,330	5,797	5,470	49,351	29,879	23,045	3,000	3,000	0	82,881	38,676	28,515
29	Florida	1,400	1,400	1,400	15,793	8,688	2,595	675	825	0	17,868	10,913	3,995
	East South Central:												
30	Kentucky	0	0	0	26,460	29,425	16,060	0	0	0	26,460	29,425	16,060
31	Tennessee	0	0	0	53,367	39,655	11,482	0	0	0	53,367	39,655	11,482
32	Alabama	0	0	0	48,930	26,215	12,350	0	0	0	48,930	26,215	12,350
33	Mississippi	0	0	0	9,850	10,864	2,555	0	0	0	9,850	10,864	2,555
	West South Central:												
34	Arkansas	0	0	0	16,744	10,541	2,365	0	0	0	16,744	10,541	2,365
35	Louisiana	0	0	0	43,745	43,431	13,550	0	0	0	43,745	43,431	13,550
36	Oklahoma	0	0	0	9,375	1,800	0	300	0	0	9,675	1,800	0
37	Texas	0	0	0	40,697	18,485	7,380	375	0	0	41,072	18,485	7,380
	Mountain:												
38	Montana	770	0	250	750	1,150	1,350	0	0	0	1,520	1,150	1,600
39	Idaho	0	0	60	0	0	0	0	0	0	0	0	60
40	Wyoming	0	0	0	0	0	0	0	0	0	0	0	0
41	Colorado	5,200	1,880	250	43,332	19,910	9,785	0	0	0	48,532	21,790	10,035
42	New Mexico	0	0	0	0	1,180	0	0	0	0	0	1,180	0
43	Arizona	0	0	0	600	0	250	0	0	0	600	0	250
44	Utah	15,100	9,600	0	26,186	2,590	900	0	0	0	41,286	12,190	900
45	Nevada	0	0	0	0	0	0	0	0	0	0	0	0
	Pacific:												
46	Washington	192,050	4,900	1,325	53,767	37,537	13,167	0	0	0	245,817	42,437	14,492
47	Oregon	75,500	0	0	33,950	0	4,300	0	0	0	109,450	0	4,300
48	California	265	200	6,495	33,640	60,955	31,717	0	160	175	33,311	61,315	38,387
49	New England	35,010	14,116	5,843	384,178	285,889	192,949	2,700	2,700	0	421,888	302,705	198,792
50	Middle Atlantic	19,240	10,110	8,845	951,088	793,187	400,120	7,375	5,025	1,100	977,703	808,322	410,065
51	East North Central	41,923	5,863	5,035	778,194	627,555	374,670	4,590	2,250	650	824,707	635,668	380,355
52	West North Central	22,000	10,280	10,280	301,895	184,014	105,270	3,575	1,125	0	327,470	195,419	115,550
53	South Atlantic	64,249	35,012	10,770	313,400	217,144	107,987	5,275	5,075	0	382,924	257,231	118,757
54	East South Central	0	0	0	138,607	106,159	42,447	0	0	0	138,607	106,159	42,447
55	West South Central	0	0	0	110,561	74,257	23,295	675	0	0	111,236	74,257	23,295
56	Mountain	21,070	11,480	560	70,868	24,830	12,285	0	0	0	91,938	36,310	12,845
57	Pacific	267,815	5,100	7,820	120,763	98,492	49,184	0	160	175	388,578	103,752	57,179
	United States	471,307	91,961	49,153	3,169,554	2,411,527	1,308,207	24,190	16,335	1,925	3,665,051	2,519,823	1,359,285

NOTE.—The increase from 1907 to 1912 in the States of Oregon and Washington arises from the fact that the Census Bureau classified the plants now operated by the Portland Railway, Light & Power Co. and by the Puget Sound Traction, Light & Power Co. as central stations in 1907 and as electric railway stations in 1912. Both should properly have been classified as central stations in 1912.

The term "Steam power" includes steam engines and steam turbines; "Water power" water wheels, turbines, and motors; and "Gas power," internal-combustion engines using either gas or oil fuel.

TABLE 15.—MANUFACTURING PLANTS—PRIMARY POWER IN 1912, 1907, AND 1902—STEAM POWER, WATER POWER, AND GAS POWER, BY STATES AND BY GEOGRAPHIC DIVISIONS, IN HORSEPOWER.

		Water power.			Steam power.			Gas power.			Total power.		
		1912	1907	1902	1912	1907	1902	1912	1907	1902	1912	1907	1902
	New England:												
1	Maine	291,571	236,273	185,372	193,661	151,884	111,794	5,262	5,507	4,838	490,494	393,664	302,004
2	New Hampshire	144,653	116,916	102,449	161,141	124,452	97,425	2,658	7,633	7,713	308,452	249,001	207,587
3	Vermont	80,757	77,932	76,711	68,703	61,284	51,776	3,345	3,127	3,025	152,805	142,343	131,512
4	Massachusetts	188,369	185,280	182,819	921,242	777,008	644,890	47,949	41,131	31,912	1,157,560	1,003,419	859,621
5	Rhode Island	32,729	30,543	28,807	196,276	161,305	130,487	6,743	6,059	6,087	235,748	197,907	165,381
6	Connecticut	78,210	71,084	66,969	308,706	252,432	202,329	22,149	14,865	9,131	409,065	338,381	278,429
	Middle Atlantic:												
7	New York	365,308	415,824	401,845	1,219,105	988,725	774,179	135,149	128,604	97,626	1,719,562	1,533,153	1,273,650
8	New Jersey	20,563	19,084	18,983	615,407	472,509	344,584	35,245	26,157	19,186	671,215	517,750	382,753
9	Pennsylvania	57,938	53,364	52,212	2,812,523	2,360,179	1,888,346	211,002	158,691	97,192	3,081,463	2,572,234	2,037,750
	East North Central:												
10	Ohio	14,882	16,924	18,029	1,562,215	1,228,746	910,001	140,940	85,577	38,193	1,727,037	1,331,247	966,223
11	Indiana	6,818	8,610	10,597	515,486	403,890	320,930	163,217	76,868	20,741	685,521	489,368	352,268
12	Illinois	21,288	13,027	13,664	950,172	763,551	593,935	52,497	40,292	30,898	1,013,957	817,470	638,497
13	Michigan	43,625	40,948	38,217	519,178	429,748	353,188	18,538	15,106	11,376	581,341	485,802	602,781
14	Wisconsin	139,971	122,905	104,848	420,935	347,772	287,381	26,041	19,226	11,558	586,947	489,903	403,787
	West North Central:												
15	Minnesota	72,365	51,040	32,920	219,381	186,707	158,893	8,646	7,612	6,133	300,392	245,359	197,946
16	Iowa	6,339	6,459	6,845	134,760	113,296	96,724	10,199	7,580	5,827	151,298	127,335	109,396
17	Missouri	3,745	3,734	3,481	316,054	256,780	202,038	14,122	10,892	8,216	333,921	271,406	213,735
18	North Dakota	655	447	396	11,101	9,550	7,543	1,741	1,060	706	13,497	11,057	8,645
19	South Dakota	861	991	1,081	14,521	10,747	8,792	3,607	2,241	1,381	18,989	13,979	11,254
20	Nebraska	7,565	7,350	7,338	51,282	40,488	32,826	5,845	3,926	2,624	64,692	51,764	42,788
21	Kansas	8,403	7,241	6,935	221,548	134,980	72,031	34,006	17,361	5,938	263,957	159,582	84,904
	South Atlantic:												
22	Delaware	5,144	5,229	5,328	42,407	42,172	38,378	653	924	1,145	48,204	48,325	44,851
23	Maryland and District of Columbia	13,666	12,304	11,206	218,027	177,141	141,253	8,491	9,209	8,372	240,184	198,654	160,831
24	Virginia	56,680	37,471	24,988	267,734	190,348	130,107	4,943	3,561	2,812	329,357	231,380	157,907
25	West Virginia	13,145	8,932	6,012	220,818	160,439	108,221	22,821	13,049	5,195	256,784	182,420	119,428
26	North Carolina	50,052	36,508	28,726	325,211	236,433	159,011	5,837	3,846	2,212	381,100	276,787	189,949
27	South Carolina	42,937	35,537	29,693	214,424	178,804	126,824	5,619	2,419	1,905	262,980	216,760	158,422
28	Georgia	29,014	28,570	26,074	274,401	217,506	154,410	7,173	4,116	1,821	310,588	250,192	182,305
29	Florida	203	150	117	110,028	67,495	39,203	2,662	1,198	606	112,893	68,843	39,926
	East South Central:												
30	Kentucky	5,841	5,067	4,461	234,448	189,686	152,146	7,516	4,893	2,819	247,805	199,646	159,426
31	Tennessee	9,646	9,864	10,428	247,389	193,970	143,838	3,012	2,152	1,444	260,047	205,986	155,710
32	Alabama	16,566	12,161	9,479	356,958	309,153	233,263	7,807	4,021	1,439	381,331	325,335	244,181
33	Mississippi	335	174	191	258,041	165,152	91,543	1,689	843	307	260,065	166,169	92,041
	West South Central:												
34	Arkansas	728	638	644	204,424	143,971	95,826	2,244	1,305	689	207,396	145,914	97,159
35	Louisiana	0	151	285	382,745	297,120	222,444	7,904	4,948	2,295	390,649	302,219	225,024
36	Oklahoma	690	327	128	74,010	45,064	21,079	13,266	5,728	829	87,966	51,119	22,036
37	Texas	1,653	2,043	1,989	305,973	211,810	137,564	24,405	10,798	2,087	332,031	224,651	141,640
	Mountain:												
38	Montana	15,645	12,314	10,076	60,033	42,735	32,217	857	426	403	76,535	55,475	42,696
39	Idaho	3,204	1,875	1,289	47,759	27,375	10,691	283	248	147	51,246	29,498	12,127
40	Wyoming	515	432	443	8,720	4,965	2,901	13	295	316	9,248	5,692	3,660
41	Colorado	1,025	1,693	1,854	146,509	128,403	86,283	1,767	1,606	1,447	149,301	131,702	89,584
42	New Mexico	29	104	151	16,791	9,107	4,371	285	419	385	16,105	9,630	4,907
43	Arizona	46	184	320	43,412	28,047	14,358	1,115	1,763	1,470	44,573	29,994	16,148
44	Utah	2,844	3,099	3,298	39,077	22,255	10,340	0	641	671	41,921	25,995	14,309
45	Nevada	169	552	826	6,598	3,157	906	596	480	262	7,363	4,189	1,994
	Pacific:												
46	Washington	10,119	6,696	5,526	321,381	214,463	121,287	1,599	1,686	1,218	333,099	222,845	128,031
47	Oregon	63,505	36,727	20,101	146,283	89,551	48,501	572	495	475	210,360	126,773	69,077
48	California	7,916	7,506	6,228	217,735	177,387	133,983	11,852	11,043	9,318	237,503	195,936	149,529
49	New England	816,289	718,028	643,127	1,849,729	1,528,365	1,238,701	88,106	78,322	63,706	2,754,124	2,324,715	1,944,534
50	Middle Atlantic	443,809	488,272	473,040	4,647,035	3,821,413	3,007,109	381,396	313,452	214,004	5,472,240	4,623,137	3,694,153
51	East North Central	216,584	203,014	185,355	3,967,986	3,173,707	2,465,435	410,233	237,069	112,766	4,594,803	3,613,790	2,763,556
52	West North Central	99,933	77,262	58,996	968,647	752,548	578,847	78,166	50,672	30,825	1,146,746	880,482	668,668
53	South Atlantic	210,841	164,701	132,144	1,673,050	1,270,338	897,407	58,199	38,322	24,068	1,942,090	1,473,361	1,053,619
54	East South Central	32,388	27,266	24,559	1,096,836	857,961	620,790	20,024	11,909	6,009	1,149,248	897,136	651,358
55	West South Central	3,071	3,159	3,046	967,152	697,965	476,913	47,819	22,779	5,900	1,018,042	723,903	485,859
56	Mountain	23,477	20,253	18,257	367,899	266,044	162,067	4,916	5,878	5,101	396,292	292,175	185,425
57	Pacific	81,540	50,929	31,855	685,399	481,401	303,771	14,023	13,224	11,011	780,962	545,554	346,637
	United States	1,927,932	1,752,884	1,570,379	16,223,733	12,849,742	9,751,040	1,102,882	771,627	472,390	19,254,547	15,374,253	11,793,809

NOTE.—Figures for primary power in manufacturing plants are given in the Census for Manufactures 1910, for the years 1899, 1904, and 1909. Primary power for 1912, 1907, and 1902 has been estimated by assuming a uniform increase from 1899 to 1904 and from 1904 to 1909 and 1912. The term "Steam power" includes steam engines and steam turbines; "Water power," water wheels, turbines, and motors; and "Gas power," internal-combustion engines using either gas or oil fuel.

TABLE 16.—COMMERCIAL AND MUNICIPAL CENTRAL STATIONS, PRIMARY POWER IN 1912, 1907, AND 1902—STEAM POWER, WATER POWER, AND GAS POWER, BY STATES AND BY GEOGRAPHIC DIVISIONS, IN HORSEPOWER.

		Water power.			Steam power.			Gas power.			Total power.		
		1912	1907	1902	1912	1907	1902	1912	1907	1902	1912	1907	1902
	New England:												
1	Maine	69,938	39,766	13,046	19,610	18,114	11,843	135	0	0	89,683	57,880	24,889
2	New Hampshire	56,937	25,404	15,406	25,386	20,265	12,640	1,905	1,115	50	84,228	46,784	28,096
3	Vermont	35,272	28,472	16,296	14,996	9,889	7,436	95	205	125	50,363	38,566	23,857
4	Massachusetts	24,480	16,781	8,933	323,128	170,457	115,195	3,172	1,097	85	350,780	188,335	124,213
5	Rhode Island	2,440	2,263	1,925	46,934	24,723	15,675	1,125	1,000	0	50,499	27,986	17,600
6	Connecticut	19,434	18,045	6,565	89,372	37,492	21,418	885	706	406	109,691	56,243	28,389
	Middle Atlantic:												
7	New York	512,406	205,950	128,785	638,932	413,388	192,623	6,471	3,315	2,005	1,157,809	722,653	323,413
8	New Jersey	1,569	1,794	1,005	235,585	90,480	67,325	2,360	1,328	431	239,514	93,602	68,761
9	Pennsylvania	132,293	30,863	6,988	465,968	264,205	166,739	17,733	7,469	1,783	615,994	302,537	175,510
	East North Central:												
10	Ohio	8,860	2,037	1,676	317,160	171,446	101,314	11,252	5,628	755	337,272	179,111	103,745
11	Indiana	23,915	19,606	1,105	159,888	95,927	52,035	1,700	1,295	1,097	185,503	116,828	54,237
12	Illinois	37,362	10,478	9,505	605,227	287,898	117,069	3,042	870	292	645,631	299,246	126,866
13	Michigan	125,079	85,738	16,085	250,477	97,866	48,614	1,626	603	184	377,182	184,207	64,883
14	Wisconsin	68,766	19,001	7,837	72,145	37,809	26,968	4,500	2,079	910	145,411	58,889	35,715
	West North Central:												
15	Minnesota	80,172	71,656	6,040	63,184	48,741	28,118	4,755	1,428	665	148,111	121,825	34,823
16	Iowa	7,029	3,833	2,399	67,444	42,342	36,705	2,658	564	400	77,131	46,739	39,504
17	Missouri	1,902	2,002	1,000	177,721	108,451	44,307	2,472	963	11	182,095	111,416	45,318
18	North Dakota	0	100	100	15,851	9,972	3,830	318	205	0	16,169	10,277	3,930
19	South Dakota	6,913	2,205	845	16,003	10,251	4,010	4,832	528	202	27,748	12,984	5,057
20	Nebraska	5,884	2,954	1,820	42,452	26,221	10,406	3,832	845	82	52,168	30,020	12,308
21	Kansas	8,820	8,661	1,034	82,372	38,035	12,249	7,136	1,678	0	98,328	48,374	13,283
	South Atlantic:												
22	Delaware	826	285	0	3,575	7,490	1,585	250	0	0	4,651	7,775	1,585
23	Maryland and District of Columbia	3,223	1,347	275	104,381	76,094	27,923	823	130	80	108,427	77,571	28,278
24	Virginia	44,280	9,551	1,221	15,120	5,008	4,222	185	60	0	59,585	14,619	5,443
25	West Virginia	6,036	3,627	100	34,064	16,876	10,100	3,085	925	620	43,185	21,428	10,820
26	North Carolina	49,951	9,962	1,920	14,952	10,721	4,646	80	0	0	64,983	20,683	6,566
27	South Carolina	178,555	75,430	10,415	39,486	8,535	10,790	455	150	0	218,496	84,115	21,205
28	Georgia	51,957	36,335	6,121	35,274	18,229	6,509	720	140	0	87,951	54,704	12,630
29	Florida	5,700	0	0	27,636	14,330	6,114	500	40	0	33,836	14,370	6,114
	East South Central:												
30	Kentucky	0	0	30	81,191	41,969	21,340	576	15	45	81,767	41,984	21,415
31	Tennessee	27,750	1,240	619	40,799	27,490	18,384	445	0	0	68,994	28,730	19,003
32	Alabama	9,880	7,007	0	24,574	19,377	7,595	19	20	25	34,473	26,404	7,620
33	Mississippi	0	0	0	30,457	15,497	7,660	40	25	0	30,497	15,522	7,660
	West South Central:												
34	Arkansas	3,040	300	227	22,599	13,641	8,206	221	12	0	25,860	13,953	8,433
35	Louisiana	0	0	0	26,175	22,872	13,767	990	420	0	27,165	23,292	13,767
36	Oklahoma	2,135	0	0	45,821	22,423	4,407	5,966	200	0	53,922	22,623	4,407
37	Texas	3,503	2,762	1,104	113,611	66,094	33,675	9,502	3,058	108	126,616	71,914	34,887
	Mountain:												
38	Montana	102,885	56,987	24,000	12,750	11,830	7,885	75	0	2	115,710	68,817	31,887
39	Idaho	51,850	11,492	3,924	4,525	2,202	1,480	0	0	50	56,375	13,694	5,454
40	Wyoming	1,334	765	75	10,162	4,360	2,654	100	0	500	11,596	5,125	3,229
41	Colorado	77,005	25,580	12,750	56,919	56,547	25,518	80	300	0	134,004	82,427	38,268
42	New Mexico	817	513	50	8,428	4,035	1,730	1,770	0	0	11,015	4,548	1,780
43	Arizona	9,300	750	0	12,775	6,926	1,890	0	70	650	22,075	7,746	2,540
44	Utah	59,588	34,671	18,410	1,000	1,279	2,050	0	0	0	60,588	35,950	20,460
45	Nevada	12,540	6,260	1,470	2,210	235	250	670	485	0	15,420	6,980	1,720
	Pacific:												
46	Washington	77,591	56,118	17,238	18,128	11,016	5,656	165	90	0	95,884	67,224	22,894
47	Oregon	29,802	102,052	11,195	15,879	24,581	6,603	334	182	0	46,015	126,815	17,798
48	California	432,062	208,444	78,933	414,206	159,644	55,237	1,980	16,585	618	848,248	384,673	134,788
49	New England	208,501	130,731	62,171	519,426	280,940	184,207	7,317	4,123	666	735,244	415,794	247,044
50	Middle Atlantic	646,268	338,607	136,778	1,340,485	768,073	426,687	26,564	12,112	4,219	2,013,317	1,118,792	567,684
51	East North Central	263,982	136,860	36,208	1,404,897	690,946	346,000	22,120	10,475	3,238	1,690,999	838,281	385,446
52	West North Central	110,720	91,411	13,238	465,027	284,013	139,625	26,003	6,211	1,360	601,750	381,635	154,223
53	South Atlantic	340,528	136,537	20,052	274,488	157,283	71,889	6,098	1,445	700	621,114	295,265	92,641
54	East South Central	37,630	8,247	649	177,021	104,333	54,979	1,080	60	70	215,731	112,640	55,698
55	West South Central	8,678	3,062	1,331	208,206	125,030	60,055	16,679	3,690	108	233,563	131,782	61,494
56	Mountain	315,319	137,018	60,679	108,769	87,414	43,457	2,695	855	1,202	426,783	225,287	105,338
57	Pacific	539,455	366,614	107,366	448,213	195,241	67,496	2,479	16,857	618	990,147	578,712	175,480
	United States	2,471,081	1,349,087	438,472	4,946,532	2,693,273	1,394,395	111,035	55,828	12,181	7,528,648	4,098,188	1,845,048

NOTE.—The reduction from 1907 to 1912 in the State of Oregon arises from the fact that the Census Bureau classified the plants now operated by the Portland Railway, Light & Power Co. as central stations in 1907 and as electric railway stations in 1912. These should properly have been classified as central stations in 1912.

The term "Steam power" includes steam engines and steam turbines; "Water power," water wheels, turbines, and motors; and "Gas power," internal-combustion engines using either gas or oil fuel.

TABLE 17.—COMMERCIAL AND MUNICIPAL CENTRAL STATIONS AND STREET AND ELECTRIC RAILWAY PRIMARY POWER IN 1912, 1907, AND 1902—STEAM POWER, WATER POWER, AND GAS POWER, BY STATES AND BY GEOGRAPHIC DIVISIONS, IN HORSEPOWER.

		Water power.			Steam power.			Gas power.			Total power		
		1912	1907	1902	1912	1907	1902	1912	1907	1902	1912	1907	1902
	New England:												
1	Maine	95,502	46,766	16,371	34,136	31,459	21,583	135	0	0	129,773	78,225	37,954
2	New Hampshire	59,119	26,204	15,406	27,306	23,095	16,655	1,905	1,115	50	88,330	50,414	32,111
3	Vermont	39,927	31,222	16,436	17,996	12,589	8,447	95	205	125	58,018	44,026	25,008
4	Massachusetts	26,189	18,409	10,665	591,515	365,216	249,643	5,872	3,797	85	623,576	387,422	260,393
5	Rhode Island	2,440	2,263	1,925	91,784	53,808	28,810	1,125	1,000	0	95,349	57,071	30,735
6	Connecticut	20,334	19,983	7,211	140,867	80,662	52,018	885	706	406	162,086	101,351	59,635
	Middle Atlantic:												
7	New York	530,921	315,435	137,430	1,273,422	819,079	423,648	9,186	5,290	2,105	1,813,529	1,139,804	563,183
8	New Jersey	1,569	1,794	1,005	264,683	182,415	98,465	2,360	1,328	431	268,612	185,537	99,901
9	Pennsylvania	133,018	31,488	7,188	753,468	559,766	304,694	22,393	10,519	2,783	908,879	601,773	314,665
	East North Central:												
10	Ohio	10,690	3,287	2,276	648,155	406,091	231,814	11,502	5,878	1,005	670,347	415,256	235,095
11	Indiana	23,915	19,606	1,105	281,468	176,066	78,840	2,040	1,295	1,097	307,423	196,967	81,042
12	Illinois	42,562	11,631	10,055	774,807	484,991	251,213	3,042	870	692	820,411	497,492	261,960
13	Michigan	134,454	85,738	16,085	309,382	154,711	95,305	1,626	603	184	445,462	241,052	111,574
14	Wisconsin	94,284	22,461	11,722	169,279	96,642	63,498	8,500	4,079	910	272,063	123,182	76,130
	West North Central:												
15	Minnesota	102,172	81,936	16,320	154,767	89,691	39,393	4,755	1,428	665	261,694	173,055	56,378
16	Iowa	7,029	3,833	2,399	123,906	74,692	56,780	2,658	564	400	133,593	79,089	59,579
17	Missouri	1,902	2,002	1,000	303,661	199,973	109,412	2,472	963	11	308,035	202,938	110,423
18	North Dakota	0	100	100	15,931	10,222	3,830	318	205	0	16,249	10,527	3,930
19	South Dakota	6,913	2,205	845	16,003	10,251	4,010	4,832	528	202	27,748	12,984	5,057
20	Nebraska	5,884	2,954	1,820	61,577	38,303	15,506	3,832	845	82	71,293	42,102	17,408
21	Kansas	8,820	8,661	1,034	91,077	44,895	15,964	10,711	2,803	0	110,608	56,359	16,998
	South Atlantic:												
22	Delaware	826	285	0	23,825	14,515	7,385	250	0	0	24,901	14,800	7,385
23	Maryland and District of Columbia	3,223	1,347	275	198,822	155,344	66,613	823	130	80	202,868	156,821	66,968
24	Virginia	66,399	26,476	2,171	93,905	55,046	20,082	185	960	0	160,489	82,482	22,253
25	West Virginia	6,036	3,627	100	59,804	37,989	22,150	3,085	1,275	620	68,925	42,891	22,870
26	North Carolina	60,151	12,812	4,870	31,832	20,296	8,718	1,680	0	0	93,713	33,108	13,588
27	South Carolina	178,555	83,470	10,415	51,596	20,111	16,665	455	150	0	230,606	103,731	27,080
28	Georgia	82,487	42,132	11,591	84,625	48,108	29,554	3,720	3,140	0	170,832	93,380	41,145
29	Florida	7,100	1,400	1,400	43,429	23,018	8,709	1,175	865	0	51,704	25,283	10,109
	East South Central:												
30	Kentucky	0	0	30	107,651	71,394	37,400	576	15	45	108,227	71,409	37,475
31	Tennessee	27,750	1,240	619	94,166	67,145	29,866	445	0	0	122,361	68,385	30,485
32	Alabama	9,880	7,007	0	73,504	45,592	19,945	19	20	25	83,403	52,619	19,970
33	Mississippi	0	0	0	40,307	26,361	10,215	40	25	0	40,347	26,386	10,215
	West South Central:												
34	Arkansas	3,040	300	227	39,343	24,182	10,571	221	12	0	42,604	24,494	10,798
35	Louisiana	0	0	0	69,920	66,303	27,317	990	420	0	70,910	66,723	27,317
36	Oklahoma	2,135	0	0	55,196	24,223	4,407	6,266	200	0	63,597	24,423	4,407
37	Texas	3,503	2,762	1,104	154,308	84,579	41,055	9,877	3,058	108	167,688	90,399	42,267
	Mountain:												
38	Montana	103,655	56,987	24,250	13,500	12,980	9,235	75	0	2	117,230	69,967	33,487
39	Idaho	51,850	11,492	3,984	4,525	2,202	1,480	0	0	50	56,375	13,694	5,514
40	Wyoming	1,334	765	75	10,162	4,360	2,654	100	0	500	11,596	5,125	3,229
41	Colorado	82,205	27,460	13,000	100,251	76,457	35,303	80	300	0	182,536	104,217	48,303
42	New Mexico	817	513	50	8,428	5,215	1,730	1,770	0	0	11,015	5,728	1,780
43	Arizona	9,300	750	0	13,375	6,926	2,140	0	70	650	22,675	7,746	2,790
44	Utah	74,688	44,271	18,410	27,186	3,869	2,950	0	0	0	101,874	48,140	21,360
45	Nevada	12,540	6,260	1,470	2,210	235	250	670	485	0	15,420	6,980	1,720
	Pacific:												
46	Washington	269,641	61,018	18,563	71,895	48,553	18,823	165	90	0	341,701	109,661	37,386
47	Oregon	105,302	102,052	11,195	49,829	24,581	10,903	334	182	0	155,465	126,815	22,098
48	California	432,327	208,644	85,428	447,252	220,599	86,954	1,980	16,745	793	881,559	445,988	173,175
49	New England	243,511	144,847	68,014	903,604	566,829	377,156	10,017	6,823	666	1,157,132	718,499	445,836
50	Middle Atlantic	665,508	348,717	145,623	2,291,573	1,561,260	826,807	33,939	17,137	5,319	2,991,020	1,927,114	977,749
51	East North Central	305,905	142,723	41,243	2,183,091	1,318,501	720,670	26,710	12,725	3,888	2,515,706	1,473,949	765,801
52	West North Central	132,720	101,691	23,518	766,922	468,027	244,895	29,578	7,336	1,360	929,220	577,054	269,773
53	South Atlantic	404,777	171,549	30,822	587,888	374,427	179,876	11,373	6,520	700	1,004,038	552,496	211,398
54	East South Central	37,630	8,247	649	315,628	210,492	97,426	1,080	60	70	354,338	218,799	98,145
55	West South Central	8,678	3,062	1,331	318,767	199,287	83,350	17,354	3,690	108	344,799	206,039	84,789
56	Mountain	336,389	148,498	61,239	179,637	112,244	55,742	2,695	855	1,202	518,721	261,597	118,183
57	Pacific	807,270	371,714	115,186	568,976	293,733	116,680	2,479	17,017	793	1,378,725	682,464	232,659
	United States	2,942,388	1,441,048	487,625	8,116,086	5,104,800	2,702,602	135,225	72,163	14,106	11,193,699	6,618,011	3,204,333

NOTE.—The term "Steam power" includes steam engines and steam turbines; "Water power," water wheels, turbines, and motors; and "Gas power," internal combustion engines using either gas or oil fuel.

TABLE 18.—PRIMARY POWER PER THOUSAND OF POPULATION, 1912, 1907, AND 1902, COMMERCIAL AND MUNICIPAL CENTRAL STATIONS, STREET AND ELECTRIC RAILWAYS, AND MANUFACTURING PLANTS, BY STATES AND BY GEOGRAPHIC DIVISIONS, IN HORSEPOWER.

		Commercial central stations.			Municipal central stations.			Street and electric railways.			Manufacturing plants.		
		1912	1907	1902	1912	1907	1902	1912	1907	1902	1912	1907	1902
	New England:												
1	Maine	115.8	76.3	34.5	3.3	3.1	0.8	53.2	27.9	18.3	651.3	540.1	428.6
2	New Hampshire	190.9	107.9	67.2	2.9	2.2	.4	9.4	8.5	9.7	709.4	585.6	499.5
3	Vermont	121.5	95.4	58.9	18.9	14.0	10.0	21.4	15.5	3.3	426.0	403.8	379.9
4	Massachusetts	93.0	53.8	40.3	7.5	4.9	2.1	78.1	62.1	46.6	331.5	312.8	294.0
5	Rhode Island	88.7	54.6	38.7	.2	.2	.2	78.9	57.0	29.0	415.0	387.7	365.4
6	Connecticut	86.4	48.9	28.9	8.0	4.3	.9	45.1	42.7	32.8	352.3	320.4	292.5
	Middle Atlantic:												
7	New York	120.2	82.6	41.5	1.4	1.5	.8	68.9	48.6	31.3	180.6	178.5	166.3
8	New Jersey	88.2	39.0	33.5	1.0	.7	.5	10.8	39.1	15.4	250.2	220.1	189.3
9	Pennsylvania	75.4	39.7	25.4	1.9	1.9	1.2	36.8	41.1	21.1	386.7	353.4	309.1
	East North Central:												
10	Ohio	61.1	32.6	20.0	7.7	6.4	4.2	67.9	51.4	30.6	352.3	289.7	225.4
11	Indiana	56.2	36.4	16.0	11.4	7.7	5.2	44.5	30.3	10.5	250.0	184.7	137.9
12	Illinois	102.2	49.6	21.2	8.8	5.7	4.2	30.0	36.7	27.0	174.2	151.2	127.8
13	Michigan	114.1	56.6	18.0	16.1	11.7	7.9	23.6	21.1	18.7	200.7	179.9	160.9
14	Wisconsin	55.0	21.7	15.3	5.8	4.4	1.5	52.9	28.5	19.0	245.3	216.9	190.0
	West North Central:												
15	Minnesota	59.1	52.7	13.7	9.9	8.7	5.5	52.9	25.8	11.8	139.8	123.7	108.8
16	Iowa	28.7	16.6	15.1	6.0	4.4	2.6	25.4	14.5	9.0	68.1	57.2	49.1
17	Missouri	49.6	30.7	12.2	5.0	3.7	2.2	37.8	28.2	20.7	100.2	83.7	67.9
18	North Dakota	22.0	17.6	7.9	3.5	2.8	2.6	.1	.5	0	21.3	21.9	23.1
19	South Dakota	40.2	21.1	9.9	4.2	3.3	1.6	0	0	0	30.4	26.3	25.6
20	Nebraska	33.1	22.3	10.0	9.6	3.7	1.3	15.7	10.4	4.7	53.0	44.7	39.1
21	Kansas	47.0	25.1	7.7	9.5	4.6	1.0	7.1	4.9	2.5	151.7	98.0	56.0
	South Atlantic:												
22	Delaware	14.7	32.6	4.1	7.9	6.8	4.3	98.2	35.6	30.8	233.6	244.8	238.1
23	Maryland and District of Columbia	62.7	47.5	18.2	2.5	1.6	.6	56.8	50.1	25.8	144.5	125.6	107.2
24	Virginia	23.0	5.4	2.2	5.3	1.9	.6	47.9	33.9	8.9	156.2	115.5	83.2
25	West Virginia	32.4	17.3	9.2	1.3	1.4	1.4	20.1	18.7	11.9	200.6	159.0	117.8
26	North Carolina	24.2	6.6	2.3	4.3	3.2	1.0	12.6	5.9	3.6	167.5	130.7	96.9
27	South Carolina	138.0	55.6	14.5	2.6	1.8	.9	7.8	13.4	4.3	169.1	147.9	115.0
28	Georgia	26.3	17.9	4.3	6.4	4.0	1.2	30.7	15.5	12.4	115.2	100.2	79.3
29	Florida	20.7	9.3	7.3	21.4	11.6	3.3	22.3	15.8	6.9	140.6	99.9	69.3
	East South Central:												
30	Kentucky	32.0	16.6	9.0	3.2	2.0	.9	11.4	13.1	7.4	106.7	88.7	73.2
31	Tennessee	25.9	10.2	7.4	5.1	3.2	1.8	24.0	18.5	5.6	117.0	96.3	75.8
32	Alabama	12.7	10.7	3.5	2.9	2.2	.5	22.2	12.8	6.5	172.8	158.6	128.9
33	Mississippi	10.8	4.3	3.0	5.7	4.7	1.8	5.3	6.3	1.6	140.4	96.2	57.4
	West South Central:												
34	Arkansas	12.2	7.4	5.4	3.7	1.9	.8	10.3	7.0	1.7	127.0	97.3	71.1
35	Louisiana	12.4	12.0	8.6	3.4	2.7	1.0	25.5	27.5	9.4	227.4	191.4	156.3
36	Oklahoma	22.7	14.5	4.2	6.5	1.6	.4	5.2	1.3	0	47.5	36.2	22.6
37	Texas	29.0	18.9	10.1	1.9	.8	.7	10.0	5.1	2.3	81.2	61.4	43.9
	Mountain:												
38	Montana	282.9	202.3	116.6	2.3	1.0	.9	3.7	3.4	5.9	188.7	163.9	157.4
39	Idaho	152.6	48.0	27.8	3.0	1.0	0	0	0	.3	141.5	105.6	61.8
40	Wyoming	71.7	39.1	31.1	1.7	0	0	0	0	0	58.6	43.5	35.3
41	Colorado	153.0	112.3	64.2	3.4	1.3	.2	56.6	30.0	16.9	174.2	181.5	150.7
42	New Mexico	28.8	15.7	8.0	2.0	0	0	0	4.1	0	45.1	33.2	22.0
43	Arizona	99.2	42.7	18.1	0	0	0	2.7	0	1.8	200.2	165.4	115.3
44	Utah	142.6	96.0	68.4	10.8	.8	.4	104.5	35.2	3.0	106.1	75.1	48.2
45	Nevada	170.0	98.7	33.9	0	0	0	0	0	0	81.1	59.3	39.3
	Pacific:												
46	Washington	29.8	64.0	34.3	44.9	5.6	.9	191.7	43.9	22.3	259.8	230.8	197.1
47	Oregon	56.6	210.5	37.3	6.4	1.0	.7	149.8	0	9.2	287.9	211.5	147.5
48	California	325.4	178.6	79.3	3.7	2.5	1.3	12.9	28.9	22.9	92.2	92.2	89.4
49	New England	101.8	61.6	40.7	6.8	4.6	2.0	62.3	48.2	34.3	406.9	370.1	335.5
50	Middle Atlantic	98.2	59.9	34.0	1.6	1.5	.9	48.4	44.4	25.2	271.1	253.7	227.0
51	East North Central	80.5	40.7	18.8	9.6	6.9	4.6	44.0	36.1	23.1	244.9	205.2	167.9
52	West North Central	43.4	29.1	11.9	7.1	4.8	2.6	27.5	17.3	10.9	96.1	78.1	63.0
53	South Atlantic	44.0	22.1	7.4	5.3	3.1	1.1	30.4	22.0	11.0	154.3	125.9	97.5
54	East South Central	20.9	10.8	6.0	4.2	3.0	1.2	16.1	13.0	5.5	133.6	109.9	84.3
55	West South Central	21.7	14.7	8.1	3.4	1.5	.7	12.0	9.1	3.3	109.6	88.8	69.3
56	Mountain	146.3	93.6	55.9	3.6	1.8	.3	32.3	15.4	6.8	139.1	123.7	98.8
57	Pacific	200.1	153.8	61.8	15.7	3.0	1.1	84.7	28.1	20.5	170.2	147.9	124.2
	United States	73.0	43.2	21.2	5.9	3.7	2.0	38.4	28.8	17.1	201.6	175.7	148.6

NOTE.—The reduction from 1907 to 1912 in commercial central stations in the States of Oregon and Washington and the increase in street and electric railways during the same period arises from the fact that the Census Bureau classified the plants now operated by the Portland Railway, Light & Power Co. and by the Puget Sound Traction, Light & Power Co. as central stations in 1907 and as electric railway stations in 1912. Both should properly have been classified as central stations in 1912.

Figures for primary power in manufacturing plants are given in the Census for Manufactures, 1910, for the years 1899, 1904, and 1909. Primary power for 1912, 1907 and 1902 has been estimated by assuming a uniform increase from 1899 to 1904 and from 1904 to 1909 and 1912.

TABLE 19.—PRIMARY POWER PER THOUSAND OF POPULATION, 1912, 1907, AND 1902, TOTAL CENTRAL STATIONS, AND CENTRAL STATIONS AND STREET AND ELECTRIC RAILWAYS, BY STATES AND BY GEOGRAPHIC DIVISIONS, IN HORSEPOWER.

		Commercial and municipal.			Central stations and electric railways.			Total.		
		1912	1907	1902	1912	1907	1902	1912	1907	1902
	New England:									
1	Maine	119.1	79.4	35.3	172.3	107.3	53.6	823.7	647.6	482.5
2	New Hampshire	193.8	110.1	67.6	203.2	118.6	77.3	912.6	704.2	576.8
3	Vermont	140.4	109.4	68.9	161.8	124.9	72.2	587.7	528.6	452.1
4	Massachusetts	100.5	58.7	42.4	178.6	120.8	89.0	510.2	433.5	383.0
5	Rhode Island	88.9	54.8	38.9	167.8	111.8	67.9	582.9	499.5	433.3
6	Connecticut	94.4	53.2	29.8	139.5	95.9	62.6	491.9	416.4	355.1
	Middle Atlantic:									
7	New York	121.6	84.1	42.3	190.5	132.7	73.6	371.0	311.1	239.8
8	New Jersey	89.2	39.7	34.0	100.0	78.8	49.4	350.2	299.1	238.7
9	Pennsylvania	77.3	41.6	26.6	114.1	82.7	47.7	500.8	436.1	351.9
	East North Central:									
10	Ohio	68.8	39.0	24.2	136.7	90.4	54.8	489.0	380.0	280.2
11	Indiana	67.6	44.1	21.2	112.1	74.4	31.7	362.1	259.1	169.7
12	Illinois	111.0	55.3	25.4	141.0	92.0	52.4	315.2	243.2	180.2
13	Michigan	130.2	68.3	25.9	153.8	89.4	44.6	354.5	269.2	205.5
14	Wisconsin	60.8	26.1	16.8	113.7	54.6	35.8	358.9	271.4	225.9
	West North Central:									
15	Minnesota	69.0	61.4	19.2	121.9	87.2	31.0	261.6	210.9	139.8
16	Iowa	34.7	21.0	17.7	60.1	35.5	26.7	128.1	92.7	75.7
17	Missouri	54.6	34.4	14.4	92.4	62.6	35.1	192.6	146.4	103.0
18	North Dakota	25.5	20.4	10.5	25.6	20.9	10.5	46.8	42.8	33.6
19	South Dakota	44.4	24.4	11.5	44.4	24.4	11.5	74.8	50.7	37.1
20	Nebraska	42.7	26.0	11.3	58.4	36.4	16.0	111.4	81.1	55.1
21	Kansas	56.5	29.7	8.7	63.6	34.6	11.2	215.3	132.6	67.2
	South Atlantic:									
22	Delaware	22.6	39.4	8.4	120.8	75.0	39.2	354.3	319.8	277.3
23	Maryland and District of Columbia	65.2	49.1	18.8	122.0	99.2	44.6	266.6	224.8	151.9
24	Virginia	28.3	7.3	2.8	76.2	41.2	11.7	232.4	156.7	94.9
25	West Virginia	33.7	18.7	10.6	53.8	37.4	22.5	254.4	196.4	140.3
26	North Carolina	28.5	9.8	3.3	41.1	15.7	6.9	208.6	146.3	103.8
27	South Carolina	140.6	57.4	15.4	148.4	70.8	19.7	317.4	218.7	134.7
28	Georgia	32.7	21.9	5.5	63.4	37.4	17.9	178.4	137.5	97.2
29	Florida	42.1	20.9	10.6	64.4	36.7	17.5	205.1	136.5	86.8
	East South Central:									
30	Kentucky	35.2	18.6	9.9	46.6	31.7	17.3	153.3	120.5	90.5
31	Tennessee	31.0	13.4	9.2	55.0	31.9	14.8	172.1	128.3	90.6
32	Alabama	15.6	12.9	4.0	37.8	25.7	10.5	210.6	184.3	139.5
33	Mississippi	16.5	9.0	4.8	21.8	15.3	6.4	162.2	111.4	63.8
	West South Central:									
34	Arkansas	15.9	9.3	6.2	26.2	16.3	7.9	153.1	113.6	78.9
35	Louisiana	15.8	14.7	9.6	41.3	42.2	19.0	268.7	233.7	175.2
36	Oklahoma	29.2	16.1	4.6	34.4	17.4	4.6	81.8	53.5	27.1
37	Texas	30.9	19.7	10.8	40.9	24.8	13.1	122.3	86.1	57.0
	Mountain:									
38	Montana	285.2	203.3	117.5	288.9	206.7	123.4	477.6	370.6	280.8
39	Idaho	155.6	49.0	27.8	155.6	49.0	28.1	297.1	154.7	89.8
40	Wyoming	73.4	39.1	31.1	73.4	39.1	31.1	132.0	82.6	66.5
41	Colorado	156.4	113.6	64.4	213.0	143.6	81.3	387.2	325.1	232.0
42	New Mexico	30.8	15.7	8.0	30.8	19.8	8.0	76.1	52.9	29.9
43	Arizona	99.2	42.7	18.1	101.9	42.7	19.9	302.1	208.1	135.2
44	Utah	153.4	96.8	68.8	257.9	132.0	71.8	364.0	214.2	120.1
45	Nevada	170.0	98.7	33.9	170.0	98.7	33.9	251.2	157.8	73.5
	Pacific:									
46	Washington	74.7	69.6	35.2	266.4	113.5	57.5	526.4	344.3	254.7
47	Oregon	63.0	211.5	38.0	212.8	211.5	47.2	500.6	423.0	194.8
48	California	329.1	181.1	80.6	342.0	210.0	103.5	434.2	302.1	192.9
49	New England	108.6	66.2	42.7	170.9	114.4	77.0	577.9	484.6	412.4
50	Middle Atlantic	99.8	61.4	34.9	148.2	105.8	60.1	419.3	359.4	287.1
51	East North Central	90.1	47.6	23.4	134.1	83.7	46.5	379.0	288.9	214.5
52	West North Central	50.5	33.9	14.5	78.0	51.2	25.4	174.0	129.4	88.5
53	South Atlantic	48.3	25.2	8.5	79.7	47.2	19.5	234.0	173.1	117.1
54	East South Central	25.1	13.8	7.2	41.2	26.8	12.7	174.8	136.6	97.0
55	West South Central	25.1	16.2	8.8	37.1	25.3	12.1	146.8	114.0	81.5
56	Mountain	149.9	95.4	56.2	182.2	110.8	63.0	321.3	234.4	161.8
57	Pacific	215.8	156.8	62.9	300.5	184.9	83.4	470.6	332.8	207.6
	United States	78.9	46.9	23.2	117.3	75.7	40.3	318.8	251.3	188.9

NOTE.—The reduction from 1907 to 1912 in commercial and municipal central stations in the State of Oregon arises from the fact that the Census Bureau classified the plants now operated by the Portland Railway, Light & Power Co. as central stations in 1907 and as electric railway stations in 1912. These should properly have been classified as central stations in 1912.

Figures for primary power in manufacturing plants are given in the Census for Manufactures, 1910, for the years 1899, 1904, and 1909. Primary power for 1912, 1907, and 1902 has been estimated by assuming a uniform increase from 1899 to 1904 and from 1904 to 1909 and 1912.

TABLE 20.—HORSEPOWER CAPACITY OF WATER WHEELS AND OF ELECTRIC STATIONS, AND CAPACITY LOAD FACTORS, 1912, 1907, AND 1902; PRIMARY POWER AND GENERATOR CAPACITY IN HORSEPOWER AND AVERAGE POWER GENERATED IN HORSEPOWER YEARS IN 1912; IN COMMERCIAL AND MUNICIPAL CENTRAL STATIONS AND STREET AND ELECTRIC RAILWAYS, BY STATES AND BY GEOGRAPHIC DIVISIONS.

		Horsepower capacity of water wheels.			Horsepower capacity of central stations.			Capacity load factors.			Primary power (horsepower).	Generator capacity (horsepower).	Power generated (horsepower-years).
		1912	1907	1902	1912	1907	1902	1912	1907	1902			
	New England:												
1	Maine	480	285	213	1,135	715	479	0.218	0.206	0.221	129,773	120,588	26,251
2	New Hampshire	505	254	198	1,428	836	551	.250	.192	.183	88,330	81,074	20,228
3	Vermont	360	292	200	825	643	459	.200	.146	.212	58,018	48,524	9,722
4	Massachusetts	403	252	198	2,999	1,569	1,089	.213	.245	.195	623,576	603,316	128,587
5	Rhode Island	188	141	175	6,312	3,998	2,514	.203	.255	.319	95,349	93,946	19,043
6	Connecticut	384	351	212	2,493	1,372	747	.228	.237	.242	162,086	152,193	34,675
	Middle Atlantic:												
7	New York	1,218	817	525	3,612	2,298	1,265	.317	.349	.413	1,813,529	1,629,890	517,244
8	New Jersey	87	82	72	3,741	1,462	1,074	.235	.265	.238	268,612	272,300	63,939
9	Pennsylvania	943	254	138	2,168	926	628	.288	.264	.270	908,879	840,970	242,230
	East North Central:												
10	Ohio	281	126	152	1,110	659	445	.242	.270	.223	670,347	640,390	155,015
11	Indiana	266	236	92	924	584	302	.228	.230	.257	307,423	306,522	69,738
12	Illinois	405	135	186	2,402	781	367	.293	.323	.229	820,411	809,760	237,537
13	Michigan	513	344	141	1,607	787	323	.255	.261	.230	445,462	390,657	99,544
14	Wisconsin	453	135	130	579	286	235	.208	.189	.167	272,063	243,738	50,624
	West North Central:												
15	Minnesota	824	987	418	760	713	252	.182	.191	.245	261,694	231,914	42,201
16	Iowa	121	87	77	346	244	234	.179	.163	.177	133,593	128,921	23,094
17	Missouri	380	400	500	958	687	368	.266	.332	.281	308,035	288,008	76,745
18	North Dakota	0	100	100	385	354	187	.128	.155	.328	16,249	14,772	1,890
19	South Dakota	461	184	121	360	351	181	.141	.155	.167	27,748	26,843	3,787
20	Nebraska	134	155	202	300	306	228	.227	.212	.226	71,293	64,335	14,590
21	Kansas	339	241	94	559	436	218	.221	.216	.169	110,608	104,607	23,088
	South Atlantic:												
22	Delaware	103	57	0	332	598	158	.184	.113	.254	24,901	21,567	3,961
23	Maryland and District of Columbia	129	104	46	2,582	2,097	832	.118	.245	.254	202,868	198,885	23,560
24	Virginia	722	384	145	890	287	147	.142	.194	.182	160,489	156,105	22,232
25	West Virginia	431	330	100	745	446	264	.235	.237	.183	68,925	66,688	15,666
26	North Carolina	792	246	152	691	291	173	.165	.164	.158	93,713	82,261	13,598
27	South Carolina	2,028	1,439	1,157	3,581	2,103	884	.297	.170	.165	230,606	188,921	56,043
28	Georgia	1,161	843	400	698	588	294	.144	.179	.206	170,832	151,207	21,781
29	Florida	645	175	175	677	388	235	.160	.193	.197	51,704	48,681	7,807
	East South Central:												
30	Kentucky	0	0	30	919	506	369	.245	.215	.225	108,227	93,622	22,904
31	Tennessee	867	89	77	767	368	352	.210	.241	.192	122,361	114,825	24,115
32	Alabama	659	467	0	500	480	305	.263	.251	.225	83,403	76,751	20,168
33	Mississippi	0	0	0	372	228	178	.152	.207	.179	40,347	38,207	5,807
	West South Central:												
34	Arkansas	304	300	114	349	221	201	.160	.187	.210	42,604	40,792	6,535
35	Louisiana	0	0	0	543	555	551	.230	.257	.312	70,910	69,759	16,033
36	Oklahoma	305	0	0	415	314	220	.162	.182	.145	63,597	61,548	9,998
37	Texas	195	133	92	500	330	255	.213	.206	.217	167,688	153,008	32,633
	Mountain:												
38	Montana	1,548	919	539	3,990	2,085	1,181	.578	.389	.190	117,230	101,127	58,409
39	Idaho	823	311	166	1,484	326	287	.372	.155	.212	56,375	47,779	17,754
40	Wyoming	121	128	75	580	285	248	.161	.196	.242	11,596	11,004	1,775
41	Colorado	1,142	528	302	1,836	1,472	797	.297	.283	.318	182,536	135,822	40,335
42	New Mexico	91	86	50	525	303	162	.129	.129	.306	11,015	10,695	1,384
43	Arizona	2,325	188	0	1,380	516	195	.254	.217	.244	22,675	20,302	5,158
44	Utah	1,009	805	708	1,346	1,160	1,279	.221	.228	.257	101,874	84,199	18,623
45	Nevada	965	695	368	1,928	776	344	.489	.595	.226	15,420	14,088	6,894
	Pacific:												
46	Washington	2,520	1,197	404	1,370	947	572	.278	.341	.198	341,701	281,284	78,309
47	Oregon	1,196	1,418	243	697	2,078	456	.367	.325	.195	155,465	95,349	35,013
48	California	2,079	1,199	606	7,575	2,981	1,173	.328	.313	.212	881,559	821,082	269,615
49	New England	432	279	202	2,000	1,139	786	.217	.232	.211	1,157,132	1,099,641	238,506
50	Middle Atlantic	1,119	656	444	3,000	1,589	948	.300	.315	.343	2,991,020	2,743,160	823,413
51	East North Central	435	234	145	1,336	645	347	.256	.275	.227	2,515,706	2,391,067	612,458
52	West North Central	488	508	235	560	477	259	.216	.237	.240	929,220	859,400	185,395
53	South Atlantic	1,051	645	308	1,211	756	369	.180	.201	.210	1,004,038	914,315	164,648
54	East South Central	801	284	72	654	396	310	.226	.231	.209	354,338	323,405	72,994
55	West South Central	248	128	95	460	333	274	.201	.216	.239	344,799	325,107	65,199
56	Mountain	1,075	643	425	1,707	1,030	693	.354	.292	.257	518,721	425,016	150,332
57	Pacific	2,003	1,252	494	3,990	2,216	904	.320	.320	.208	1,378,725	1,197,715	382,937
	United States	887	532	315	1,446	869	509	.262	.274	.258	11,193,699	10,278,826	2,695,882

NOTE.—The reduction in horsepower capacity of central stations from 1907 to 1912 in the State of Oregon arises from the fact that the Census Bureau classified the plants now operated by the Portland Railway, Light & Power Co. as central stations in 1907 and as electric railway stations in 1912. These should properly have been classified as central stations in 1912.

The capacity load factors have been computed by dividing the combined average annual output in kilowatt-years of the commercial and municipal central stations and the street and electric railway stations by the combined capacity in kilowatts of the electric generators in such stations.

TABLE 21.—RATIOS OF COMMERCIAL CENTRAL STATION POWER AND OF WATER POWER TO TOTAL PRIMARY POWER, 1912, 1907, AND 1902, AND PERCENTAGE INCREASES IN WATER POWER, STEAM POWER, AND TOTAL POWER, 1902 TO 1912, 1907 TO 1912, AND 1902 TO 1907, BY STATES AND BY GEOGRAPHIC DIVISIONS.

		Ratio, commercial central stations to total power.			Ratio of water power to total power.			Increase in water power in per cent of total power.			Percentage increases 1902 to 1912.		
		1912	1907	1902	1912	1907	1902	1902 to 1907	1907 to 1912	1902 to 1907	Total power.	Steam power.	Water power.
	New England:												
1	Maine	0.141	0.118	0.072	0.624	0.600	0.593	0.031	0.024	0.007	82.4	70.8	91.9
2	New Hampshire	.209	.153	.117	.514	.478	.492	.022	.036	— .014	65.5	65.2	72.6
3	Vermont	.207	.180	.130	.573	.586	.595	— .022	— .013	— .009	34.7	44.0	29.8
4	Massachusetts	.182	.124	.105	.120	.146	.173	— .053	— .026	— .027	59.0	69.1	19.9
5	Rhode Island	.152	.109	.089	.106	.129	.157	— .051	— .023	— .028	68.8	80.8	14.4
6	Connecticut	.176	.117	.081	.173	.207	.219	— .046	— .034	— .012	68.9	76.8	42.8
	Middle Atlantic:												
7	New York	.324	.266	.173	.254	.273	.293	— .039	— .019	— .020	92.3	108.1	66.0
8	New Jersey	.252	.131	.140	.024	.030	.041	— .017	— .006	— .011	94.7	98.6	41.7
9	Pennsylvania	.151	.091	.071	.048	.027	.025	.023	.021	.002	69.6	62.6	244.3
	East North Central:												
10	Ohio	.125	.086	.071	.011	.012	.017	— .006	— .001	— .005	99.6	93.6	25.9
11	Indiana	.155	.140	.095	.031	.041	.027	.004	— .010	.014	129.2	99.3	192.7
12	Illinois	.324	.204	.117	.029	.019	.026	.003	.010	— .007	103.7	104.1	127.0
13	Michigan	.322	.210	.088	.173	.174	.106	.067	— .001	.068	99.6	84.8	228.6
14	Wisconsin	.153	.080	.068	.273	.237	.243	.030	.036	— .006	79.0	68.2	141.6
	West North Central:												
15	Minnesota	.226	.250	.098	.311	.318	.194	.117	— .007	.124	121.0	88.7	254.5
16	Iowa	.224	.179	.199	.047	.050	.055	— .008	— .003	— .005	68.6	68.5	44.6
17	Missouri	.257	.209	.119	.009	.012	.014	— .005	— .003	— .002	98.0	99.0	26.0
18	North Dakota	.470	.410	.236	.022	.025	.039	— .017	— .003	— .014	136.5	137.7	32.1
19	South Dakota	.538	.416	.268	.166	.119	.118	.048	.047	.001	186.6	138.4	303.6
20	Nebraska	.297	.275	.181	.099	.110	.152	— .053	— .011	— .042	125.9	133.5	46.9
21	Kansas	.218	.189	.115	.046	.074	.078	— .032	— .028	— .004	267.6	255.3	116.1
	South Atlantic:												
22	Delaware	.041	.102	.015	.082	.087	.102	— .020	— .005	— .015	39.9	44.7	12.0
23	Maryland and District of Columbia	.235	.211	.120	.038	.038	.050	— .012	0	— .012	94.5	100.5	47.1
24	Virginia	.099	.034	.023	.251	.204	.151	.100	.047	.053	171.8	140.8	353.2
25	West Virginia	.127	.088	.066	.059	.056	.043	.016	.003	.013	128.9	115.2	213.8
26	North Carolina	.116	.045	.022	.232	.159	.165	.067	.073	— .006	133.3	112.9	228.0
27	South Carolina	.435	.254	.108	.449	.371	.216	.233	.078	.155	166.1	85.4	452.2
28	Georgia	.147	.130	.044	.232	.206	.169	.063	.026	.037	115.5	95.1	136.0
29	Florida	.101	.068	.085	.044	.016	.030	.014	.028	— .014	228.9	220.3	381.4
	East South Central:												
30	Kentucky	.209	.138	.099	.016	.019	.023	— .007	— .003	— .004	80.8	80.5	30.1
31	Tennessee	.151	.080	.082	.098	.040	.059	.039	.058	— .019	105.4	96.6	238.5
32	Alabama	.060	.058	.025	.057	.051	.036	.021	.006	.015	75.9	70.0	179.0
33	Mississippi	.066	.038	.047	.001	.001	.002	— .001	0	— .001	193.7	193.1	75.4
	West South Central:												
34	Arkansas	.080	.065	.068	.015	.006	.008	.007	.009	— .002	131.5	129.1	332.6
35	Louisiana	.046	.052	.049	0	0	.001	— .001	0	— .001	82.9	81.2	—100.0
36	Oklahoma	.277	.270	.153	.019	.004	.005	.014	.015	— .001	473.2	406.9	2,107.0
37	Texas	.237	.219	.178	.010	.015	.017	— .007	— .005	— .002	171.7	157.7	66.7
	Mountain:												
38	Montana	.592	.546	.415	.616	.553	.451	.165	.063	.102	154.3	77.4	247.5
39	Idaho	.514	.310	.309	.512	.309	.299	.213	.203	.010	510.1	329.6	944.1
40	Wyoming	.543	.474	.469	.089	.111	.075	.014	— .022	.036	202.6	240.0	256.9
41	Colorado	.395	.345	.277	.251	.124	.108	.143	.127	.016	140.7	102.9	460.4
42	New Mexico	.379	.296	.266	.031	.040	.030	.001	— .009	.010	305.5	297.0	320.9
43	Arizona	.328	.205	.134	.139	.025	.017	.122	.114	.008	255.1	244.2	2,820.6
44	Utah	.666	.448	.570	.539	.639	.609	— .070	— .100	.030	303.1	398.6	257.1
45	Nevada	.677	.625	.463	.558	.610	.618	— .060	— .052	— .008	513.5	661.8	453.5
	Pacific:												
46	Washington	.267	.186	.135	.415	.204	.146	.269	.211	.058	308.0	180.7	1,061.3
47	Oregon	.408	.498	.192	.462	.547	.343	.119	— .085	.204	301.2	230.2	439.3
48	California	.750	.591	.411	.394	.337	.284	.110	.057	.053	246.8	201 0	380.3
49	New England	.176	.127	.098	.271	.284	.297	— .026	— .013	— .013	63.6	70.4	49.0
50	Middle Atlantic	.234	.167	.118	.131	.128	.132	— .001	.003	— .004	81.1	81.0	79.3
51	East North Central	.213	.141	.088	.074	.068	.064	.010	.006	.004	101.3	93.1	130.6
52	West North Central	.249	.225	.135	.112	.123	.088	.024	— .011	.035	121.3	110.7	182.0
53	South Atlantic	.188	.128	.063	.209	.166	.129	.080	.043	.037	133.0	109.9	277.7
54	East South Central	.120	.079	.062	.047	.032	.034	.013	.015	— .002	100.6	96.7	177.7
55	West South Central	.148	.128	.099	.009	.007	.008	.001	.002	— .001	138.9	129.5	168.4
56	Mountain	.499	.399	.345	.393	.305	.262	.131	.088	.043	201.4	151.4	352.7
57	Pacific	.541	.462	.298	.412	.344	.254	.158	.068	.090	272.8	198.3	504.6
	United States	.238	.172	.112	.160	.145	.137	.023	.015	.008	103.1	95.5	136.7

NOTE.—The Census figures for primary power in central stations in 1912 have been corrected for the States of Oregon, Washington, and Utah. In each State the Census Bureau classified certain stations as central stations in 1907 and as electric railway stations in 1912, although in the latter year also they should properly have been classified as central stations.

The figures for increase in water power in per cent of total power are the arithmetic differences between the percentages which water power is of total power at the end of each period and the percentages at the beginning of such periods. Positive figures indicate more rapid development of water power than of other power, while negative figures indicate a less rapid development of water power. The figures in the last three columns represent the actual percentages of increase in each class of power.

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TABLE 22.—TOTAL ELECTRIC POWER GENERATED IN 1912, 1907, AND 1902, AND ESTIMATED POPULATION ON JULY 1 OF SAME YEARS, BY STATES AND BY GEOGRAPHIC DIVISIONS, POWER IN HORSEPOWER YEARS.

		Electric power generated.			Population.		
		1912	1907	1902	1912	1907	1902
	New England:						
1	Maine	33,267	19,476	9,933	753,085	728,828	704,573
2	New Hampshire	28,792	12,264	5,898	434,818	425,205	415,593
3	Vermont	12,061	6,106	4,111	358,710	352,475	346,239
4	Massachusetts	220,098	139,577	57,323	3,491,888	3,207,801	2,923,716
5	Rhode Island	27,101	19,656	11,142	568,114	510,367	452,616
6	Connecticut	54,437	33,882	17,106	1,160,898	1,056,426	951,950
	Middle Atlantic:						
7	New York	645,297	451,666	221,035	9,526,146	8,592,111	7,658,076
8	New Jersey	111,806	78,763	31,447	2,683,309	2,352,424	2,021,539
9	Pennsylvania	519,863	290,894	137,953	7,969,916	7,279,792	6,589,667
	East North Central:						
10	Ohio	262,951	167,897	67,232	4,903,439	4,594,793	4,286,148
11	Indiana	127,543	67,516	23,364	2,742,117	2,648,743	2,555,368
12	Illinois	347,884	215,156	74,327	5,821,305	5,407,612	4,993,922
13	Michigan	119,315	60,947	30,045	2,897,207	2,700,149	2,503,089
14	Wisconsin	75,300	34,470	16,275	2,393,081	2,258,997	2,124,911
	West North Central:						
15	Minnesota	47,946	31,935	13,279	2,148,235	1,984,025	1,819,815
16	Iowa	29,091	14,671	9,730	2,223,189	2,226,775	2,230,360
17	Missouri	99,726	73,302	33,976	3,335,080	3,240,562	3,146,047
18	North Dakota	1,984	1,329	941	634,731	504,144	373,557
19	South Dakota	3,864	2,134	677	624,658	532,346	440,033
20	Nebraska	16,860	9,534	4,675	1,220,371	1,156,618	1,092,864
21	Kansas	34,464	15,626	3,524	1,742,249	1,628,626	1,517,004
	South Atlantic:						
22	Delaware	7,393	2,997	1,951	206,255	197,352	188,446
23	Maryland and District of Columbia	28,054	39,635	19,215	1,662,119	1,581,282	1,500,446
24	Virginia	28,044	18,536	5,196	2,107,998	2,002,971	1,897,944
25	West Virginia	23,770	13,643	4,058	1,279,781	1,146,962	1,014,141
26	North Carolina	20,141	7,967	2,371	2,276,165	2,117,949	1,959,734
27	South Carolina	64,406	19,079	6,426	1,554,554	1,465,905	1,377,254
28	Georgia	25,690	17,346	7,976	2,696,961	2,498,080	2,299,199
29	Florida	8,697	4,853	2,275	802,729	689,272	575,816
	East South Central:						
30	Kentucky	29,724	17,058	9,147	2,321,823	2,249,555	2,177,285
31	Tennessee	28,579	17,677	6,244	2,221,503	2,138,377	2,055,251
32	Alabama	31,350	17,466	5,618	2,207,283	2,050,625	1,893,970
33	Mississippi	6,976	5,355	2,075	1,852,092	1,727,614	1,603,136
	West South Central:						
34	Arkansas	7,609	4,942	2,469	1,633,238	1,500,129	1,367,024
35	Louisiana	22,131	17,518	7,926	1,717,834	1,578,713	1,439,593
36	Oklahoma	10,643	4,445	614	1,850,987	1,412,120	973,252
37	Texas	39,236	20,034	9,954	4,086,141	3,656,859	3,227,577
	Mountain:						
38	Montana	58,409	21,881	6,528	405,734	338,531	271,330
39	Idaho	19,758	1,894	951	362,229	279,281	196,333
40	Wyoming	1,841	884	615	157,914	130,860	103,804
41	Colorado	47,740	30,116	14,336	857,016	725,714	594,409
42	New Mexico	1,659	951	410	356,819	289,987	223,157
43	Arizona	9,238	3,412	1,362	222,563	181,334	140,108
44	Utah	20,147	13,638	5,394	394,953	346,041	297,128
45	Nevada	10,128	6,017	231	90,718	70,698	50,678
	Pacific:						
46	Washington	83,335	46,517	6,667	1,281,508	965,616	649,724
47	Oregon	38,422	15,472	3,876	730,736	599,482	468,227
48	California	281,852	124,951	32,082	2,577,137	2,125,238	1,673,343
49	New England	375,756	230,961	105,513	6,767,513	6,281,102	5,794,687
50	Middle Atlantic	1,276,966	821,323	390,435	20,179,371	18,224,327	16,269,282
51	East North Central	932,993	545,986	211,243	18,757,149	17,610,294	16,463,438
52	West North Central	233,935	148,531	66,802	11,926,513	11,273,096	10,619,680
53	South Atlantic	206,195	124,056	49,468	12,586,562	11,699,773	10,812,980
54	East South Central	96,629	57,556	23,084	8,602,701	8,166,171	7,729,642
55	West South Central	79,619	46,939	20,963	9,288,200	8,147,821	7,007,447
56	Mountain	168,920	78,793	29,827	2,847,946	2,362,446	1,876,946
57	Pacific	403,609	186,940	42,625	4,589,381	3,690,336	2,791,294
	United States	3,774,622	2,241,085	939,960	95,545,336	87,455,366	79,365,396

TABLE 23.—ELECTRIC POWER GENERATED IN 1912, 1907, AND 1902, COMMERCIAL CENTRAL STATIONS, MUNICIPAL CENTRAL STATIONS, AND STREET AND ELECTRIC RAILWAYS, BY STATES AND BY GEOGRAPHIC DIVISIONS, IN HORSEPOWER YEARS.

		Commercial central stations.			Municipal central stations.			Street and electric railways.		
		1912	1907	1902	1912	1907	1902	1912	1907	1902
	New England:									
1	Maine	17,634	9,842	3,284	316	297	87	8,301	4,466	3,921
2	New Hampshire	19,336	8,348	4,147	71	123	50	821	452	793
3	Vermont	8,069	4,010	2,852	600	577	578	1,053	634	277
4	Massachusetts	54,968	31,638	18,644	4,245	1,999	643	69,374	56,676	29,040
5	Rhode Island	9,503	5,443	3,575	18	22	18	9,522	8,855	5,454
6	Connecticut	19,267	9,842	3,970	765	492	129	14,643	11,942	8,338
	Middle Atlantic:									
7	New York	331,138	220,954	106,546	2,297	1,672	1,035	183,809	148,510	77,098
8	New Jersey	58,510	21,363	11,937	340	179	134	5,089	27,256	9,877
9	Pennsylvania	149,848	61,729	35,270	1,868	2,129	1,690	90,514	80,269	41,374
	East North Central:									
10	Ohio	55,160	28,823	15,565	6,022	4,491	3,971	93,833	68,953	28,487
11	Indiana	31,538	16,298	8,732	4,786	3,671	2,855	33,414	22,157	7,471
12	Illinois	160,506	67,404	20,525	15,927	4,288	4,240	61,104	72,959	29,255
13	Michigan	70,689	27,395	8,842	9,888	4,515	3,509	18,967	16,953	12,778
14	Wisconsin	31,681	7,295	4,217	1,340	760	377	17,603	13,244	6,926
	West North Central:									
15	Minnesota	26,212	11,565	4,468	2,309	1,861	1,704	13,680	15,552	6,002
16	Iowa	8,768	4,658	4,631	1,529	1,126	965	12,797	6,477	3,501
17	Missouri	33,632	20,824	7,628	2,061	1,761	1,179	41,052	35,041	20,374
18	North Dakota	1,650	1,105	696	235	156	201	5	5	0
19	South Dakota	3,608	1,929	584	179	158	69	0	0	0
20	Nebraska	7,323	4,334	1,656	1,308	565	231	5,959	3,076	1,867
21	Kansas	18,585	8,136	1,743	1,842	1,023	300	2,661	1,240	550
	South Atlantic:									
22	Delaware	345	542	238	178	180	190	3,438	1,154	1,185
23	Maryland and District of Columbia	9,433	10,944	5,564	468	354	140	13,659	22,345	10,149
24	Virginia	3,152	1,196	724	1,251	369	331	17,829	12,989	2,887
25	West Virginia	6,270	3,550	1,490	221	263	251	9,175	6,110	1,800
26	North Carolina	9,796	1,240	842	1,020	780	438	2,782	3,188	678
27	South Carolina	54,223	10,218	2,541	470	313	284	1,350	4,234	866
28	Georgia	11,539	7,842	984	1,886	1,251	535	8,356	5,415	5,248
29	Florida	1,902	668	788	2,068	1,135	449	3,837	2,410	795
	East South Central:									
30	Kentucky	10,100	5,076	3,754	1,488	631	513	11,316	8,190	3,807
31	Tennessee	10,083	4,215	3,266	1,498	1,128	486	12,534	9,758	1,927
32	Alabama	6,641	4,279	1,620	810	450	161	12,717	7,375	2,392
33	Mississippi	3,223	1,312	998	1,058	1,096	508	1,526	2,240	462
	West South Central:									
34	Arkansas	2,115	1,417	1,356	612	349	172	3,808	2,506	702
35	Louisiana	2,123	3,439	2,281	686	612	398	13,224	10,274	4,420
36	Oklahoma	6,529	3,535	553	956	296	33	2,513	308	0
37	Texas	21,587	10,917	7,084	1,256	707	411	9,790	5,257	1,621
	Mountain:									
38	Montana	57,820	21,012	5,476	313	48	110	276	0	326
39	Idaho	17,612	1,384	733	142	84	36	0	0	34
40	Wyoming	1,757	843	595	18	0	0	0	0	0
41	Colorado	25,119	18,820	9,212	206	78	13	15,010	6,456	2,738
42	New Mexico	1,305	707	405	79	0	0	0	139	0
43	Arizona	5,053	1,440	561	0	0	0	105	33	71
44	Utah	12,689	8,865	4,961	592	590	14	5,342	3,404	85
45	Nevada	6,894	4,541	231	0	0	0	0	0	0
	Pacific:									
46	Washington	5,689	38,430	2,879	5,259	1,088	144	67,361	3,912	3,166
47	Oregon	8,461	14,109	2,604	551	119	84	26,001	11	1,095
48	California	266,515	100,836	23,047	1,371	589	366	1,729	17,150	6,849
49	New England	128,777	69,123	36,472	6,015	3,510	1,505	103,714	83,025	47,823
50	Middle Atlantic	539,496	304,046	153,753	4,505	3,980	2,859	279,412	256,035	128,349
51	East North Central	349,574	147,215	57,881	37,963	17,725	14,952	224,921	194,266	84,917
52	West North Central	99,778	52,551	21,406	9,463	6,650	4,649	76,154	61,391	32,294
53	South Atlantic	96,660	36,200	13,171	7,562	4,645	2,618	60,426	57,845	23,608
54	East South Central	30,047	14,882	9,638	4,854	3,305	1,668	38,093	27,563	8,588
55	West South Central	32,354	19,308	11,274	3,510	1,964	1,014	29,335	18,345	6,743
56	Mountain	128,249	57,612	22,174	1,350	800	173	20,733	10,032	3,254
57	Pacific	280,665	153,375	28,530	7,181	1,796	594	95,091	21,073	11,110
	United States	1,685,600	854,312	354,299	82,403	44,375	30,032	927,879	729,575	346,686

NOTE.—The apparent reduction from 1907 to 1912 in the output of commercial central stations in Oregon and Washington and the apparent increase in the same period in the output of electric railway stations arises from the fact that the Census Bureau classified the plants now operated by the Portland Railway, Light & Power Co. and by the Puget Sound Traction, Light & Power Co. as commercial central stations in 1907 and as electric railway stations in 1912. Both should properly have been classified as central stations in 1912.

TABLE 24.—ELECTRIC POWER GENERATED IN 1912, 1907, AND 1902, MANUFACTURING PLANTS, CENTRAL STATIONS, AND CENTRAL STATIONS AND ELECTRIC RAILWAYS, BY STATES AND BY GEOGRAPHIC DIVISIONS, IN HORSE-POWER YEARS.

		Manufacturing plants.			Commercial and municipal central stations.			Central stations and street and electric railways.		
		1912	1907	1902	1912	1907	1902	1912	1907	1902
	New England:									
1	Maine	7,016	4,871	2,641	17,950	10,139	3,371	26,251	14,605	7,292
2	New Hampshire	8,564	3,341	908	19,407	8,471	4,197	20,228	8,923	4,990
3	Vermont	2,339	885	404	8,669	4,587	3,430	9,722	5,221	3,707
4	Massachusetts	91,511	49,263	8,996	59,213	33,638	19,287	128,587	90,314	48,327
5	Rhode Island	8,058	5,336	2,095	9,521	5,465	3,593	19,043	14,320	9,047
6	Connecticut	19,762	11,606	4,669	20,032	10,334	4,099	34,675	22,276	12,487
	Middle Atlantic:									
7	New York	128,053	80,531	36,356	333,435	222,625	107,581	517,244	371,135	184,679
8	New Jersey	47,867	29,964	9,499	58,850	21,543	12,071	63,939	48,799	21,948
9	Pennsylvania	277,633	46,767	59,619	151,716	63,858	36,960	242,230	144,127	78,334
	East North Central:									
10	Ohio	107,936	65,630	19,209	61,182	33,314	19,536	155,015	102,267	48,023
11	Indiana	57,805	25,389	4,306	36,324	19,970	11,587	69,738	42,127	19,058
12	Illinois	110,347	70,505	20,307	176,433	71,692	24,765	237,537	144,651	54,020
13	Michigan	19,771	12,084	4,916	80,577	31,910	12,351	99,544	48,863	25,129
14	Wisconsin	24,676	13,171	4,755	33,021	8,055	4,594	50,624	21,299	11,520
	West North Central:									
15	Minnesota	5,745	2,957	1,105	28,521	13,426	6,172	42,201	28,978	12,174
16	Iowa	5,997	2,410	633	10,297	5,784	5,596	23,094	12,261	9,097
17	Missouri	22,981	15,675	4,795	35,693	22,586	8,807	76,745	57,627	29,181
18	North Dakota	94	62	44	1,885	1,262	897	1,890	1,267	897
19	South Dakota	77	47	25	3,787	2,087	652	3,787	2,087	652
20	Nebraska	2,270	1,559	920	8,631	4,899	1,883	14,590	7,975	3,755
21	Kansas	11,376	5,228	931	20,427	9,158	2,043	23,088	10,398	2,593
	South Atlantic:									
22	Delaware	3,432	1,120	338	523	723	428	3,961	1,877	1,613
23	Maryland and District of Columbia	4,494	5,992	3,362	9,901	11,298	5,704	23,560	33,643	15,853
24	Virginia	5,812	3,982	1,254	4,403	1,565	1,055	22,232	14,554	3,942
25	West Virginia	8,104	3,720	517	6,491	3,813	1,741	15,666	9,923	3,541
26	North Carolina	6,543	2,760	413	10,816	2,019	1,280	13,598	5,207	1,958
27	South Carolina	8,363	4,314	2,735	54,693	10,531	2,825	56,043	14,765	3,691
28	Georgia	3,909	2,839	1,209	13,425	9,092	1,519	21,781	14,507	6,767
29	Florida	890	639	243	3,970	1,804	1,237	7,807	4,214	2,032
	East South Central:									
30	Kentucky	6,820	3,160	1,073	11,588	5,708	4,267	22,904	13,898	8,074
31	Tennessee	4,464	2,577	565	11,581	5,342	3,752	24,115	15,100	5,679
32	Alabama	11,182	5,362	1,445	7,471	4,729	1,781	20,168	12,104	4,173
33	Mississippi	1,169	708	107	4,281	2,407	1,506	5,807	4,647	1,968
	West South Central:									
34	Arkansas	1,074	670	239	2,727	1,766	1,528	6,535	4,272	2,230
35	Louisiana	6,098	3,194	827	2,809	4,050	2,679	16,673	14,324	7,099
36	Oklahoma	645	305	28	7,455	3,851	586	9,998	4,158	586
37	Texas	6,603	3,152	818	22,844	11,625	7,495	32,633	16,882	9,116
	Mountain:									
38	Montana	0	821	616	58,133	21,060	5,586	58,409	21,060	5,912
39	Idaho	2,004	426	148	17,754	1,468	769	17,754	1,468	803
40	Wyoming	66	41	20	1,775	843	595	1,775	843	595
41	Colorado	7,495	4,762	2,373	25,325	18,898	9,225	40,335	25,354	11,963
42	New Mexico	275	105	6	1,384	707	404	1,384	846	404
43	Arizona	4,080	1,939	730	5,053	1,440	561	5,158	1,473	632
44	Utah	1,524	779	333	13,281	9,455	4,976	18,623	12,859	5,061
45	Nevada	3,234	1,476	0	6,894	4,541	231	6,894	4,541	231
	Pacific:									
46	Washington	5,026	3,087	478	10,948	39,518	3,023	78,309	43,430	6,189
47	Oregon	3,409	1,233	93	9,012	14,228	2,688	35,013	14,239	3,783
48	California	12,237	6,377	1,820	267,886	101,424	23,413	269,615	118,574	30,262
49	New England	137,250	75,302	19,713	134,792	72,634	37,977	238,506	155,659	85,800
50	Middle Atlantic	453,553	257,262	105,474	544,001	308,026	156,612	823,413	564,061	284,961
51	East North Central	320,535	186,779	53,493	387,537	164,941	72,833	612,458	359,207	157,750
52	West North Central	48,540	27,938	8,453	109,241	59,202	26,055	185,395	120,593	58,349
53	South Atlantic	41,547	25,366	10,071	104,222	40,845	15,789	164,648	98,690	39,397
54	East South Central	23,635	11,807	3,190	34,901	18,186	11,306	72,994	45,749	19,894
55	West South Central	14,420	7,323	1,932	35,864	21,271	12,288	65,199	39,616	19,031
56	Mountain	18,588	10,349	4,226	129,599	58,412	22,347	150,332	68,444	25,601
57	Pacific	20,672	10,697	2,391	287,846	155,170	29,124	382,937	176,243	40,234
	United States	1,078,740	612,823	208,943	1,768,003	898,687	384,331	2,695,882	1,628,262	731,017

NOTE.—The apparent reduction from 1907 to 1912 in the output of commercial and municipal central stations in Oregon and Washington arises from the fact that the Census Bureau classified the plants now operated by the Portland Railway, Light & Power Co. and by the Puget Sound Traction, Light & Power Co. as commercial central stations in 1907 and as electric railway stations in 1912. Both should properly have been classified as central stations in 1912.

No direct figures are available for electric power generated in manufacturing plants. Generator capacities by States for the years 1899, 1904, and 1909 are given in the Census of Manufactures for 1910. Electric power generated has been estimated by assuming that the ratio between power generated and generator capacity in manufacturing plants is the same as in central stations and electric railways, and that the generator capacities, by States, of manufacturing plants increased uniformly from 1899 to 1904 and from 1904 to 1909 and 1912.

TABLE 25.—ELECTRIC POWER GENERATED PER THOUSAND OF POPULATION, 1912, 1907, AND 1902, BY COMMERCIAL AND MUNICIPAL CENTRAL STATIONS, STREET AND ELECTRIC RAILWAYS, AND MANUFACTURING PLANTS, BY STATES AND BY GEOGRAPHIC DIVISIONS, IN HORSEPOWER YEARS.

		Commercial central stations.			Municipal central stations.			Street and electric railways.					
		1912	1907	1902	1912	1907	1902	1912	1907	1902			
	New England:												
1	Maine	23.41	13.50	4.66	0.42	0.41	0.12	11.02	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	New Hampshire	44.47	19.63	9.98	.16	.29	.12	1.89	1.96	1.91	[illegible]	[illegible]	[illegible]
3	Vermont	22.49	11.38	8.24	1.67	1.64	1.67	2.94	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	Massachusetts	15.74	9.86	6.38	1.22	.62	.22	19.87	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	Rhode Island	16.73	10.66	7.90	.03	.04	.04	16.76	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	Connecticut	16.59	9.32	4.17	.66	.47	.14	12.61	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Middle Atlantic:												
7	New York	34.77	25.72	13.91	.24	.19	.14	19.30	17.29	10.07	13.45	9.37	4.75
8	New Jersey	21.81	9.08	5.90	.13	.08	.07	1.90	11.59	4.89	17.84	12.74	4.70
9	Pennsylvania	18.81	8.48	5.35	.23	.29	.26	11.36	11.03	6.28	34.84	20.17	9.04
	East North Central:												
10	Ohio	11.25	6.27	3.63	1.23	.98	.93	19.14	15.00	6.65	22.02	14.28	4.48
11	Indiana	11.50	6.15	3.42	1.75	1.39	1.12	12.19	8.36	2.92	21.08	9.58	1.69
12	Illinois	27.57	12.46	4.11	2.74	.79	.85	10.50	13.49	5.86	18.96	13.04	4.07
13	Michigan	24.40	10.15	3.53	3.41	1.67	1.40	6.55	6.28	5.10	6.82	4.48	1.96
14	Wisconsin	13.24	3.23	1.98	.56	.34	.18	7.36	5.86	3.26	10.31	5.83	2.24
	West North Central:												
15	Minnesota	12.20	5.83	2.46	1.07	.94	.94	6.37	7.84	3.30	2.67	1.49	.61
16	Iowa	3.94	2.09	2.08	.69	.51	.43	5.76	2.91	1.57	2.70	1.08	.28
17	Missouri	10.09	6.42	2.42	.62	.54	.37	12.32	10.81	6.48	6.89	4.84	1.52
18	North Dakota	2.60	2.19	1.86	.37	.31	.54	.01	.01	0	.15	.12	.12
19	South Dakota	5.78	3.62	1.33	.29	.30	.16	0	0	0	.12	.09	.06
20	Nebraska	6.00	3.75	1.52	1.07	.49	.21	4.88	2.66	1.71	1.86	1.35	.84
21	Kansas	10.68	4.99	1.15	1.06	.63	.20	1.53	.76	.36	6.54	3.21	.61
	South Atlantic:												
22	Delaware	1.67	2.75	1.26	.86	.91	1.01	16.67	5.85	6.29	16.64	5.67	4.46
23	Maryland and District of Columbia	5.68	6.92	3.71	.28	.22	.09	8.22	14.13	6.77	2.70	3.79	1.91
24	Virginia	1.50	.60	.38	.59	.18	.17	8.46	6.49	1.52	2.76	1.99	.66
25	West Virginia	4.90	3.09	1.47	.17	.23	.25	7.17	5.33	1.78	6.33	3.24	.51
26	North Carolina	4.30	.59	.43	.45	.37	.22	1.22	1.51	.35	2.87	1.30	.21
27	South Carolina	34.87	6.97	1.85	.30	.21	.21	.87	2.89	.63	5.38	2.94	1.99
28	Georgia	4.28	3.14	.43	.70	.50	.23	3.10	2.17	2.28	1.45	1.14	.53
29	Florida	2.37	.97	1.37	2.58	1.65	.78	4.78	3.50	1.38	1.11	.93	.42
	East South Central:												
30	Kentucky	4.35	2.26	1.72	.64	.28	.24	4.87	3.64	1.75	2.94	1.40	.49
31	Tennessee	4.54	1.97	1.59	.67	.53	.24	5.64	4.56	.94	2.01	1.21	.27
32	Alabama	3.01	2.09	.86	.37	.22	.09	5.76	3.60	1.26	5.07	2.61	.76
33	Mississippi	1.74	.76	.62	.57	.63	.32	.82	1.30	.29	.63	.41	.07
	West South Central:												
34	Arkansas	1.30	.94	.99	.37	.23	.13	2.33	1.67	.51	.66	.45	.17
35	Louisiana	1.24	2.18	1.58	.40	.39	.28	7.70	6.51	3.07	3.55	2.02	.57
36	Oklahoma	3.53	2.50	.57	.52	.21	.03	1.36	.22	0	.35	.22	.03
37	Texas	5.28	2.98	2.19	.31	.19	.13	2.40	1.44	.50	1.62	.86	.26
	Mountain:												
38	Montana	142.52	62.07	20.18	.77	.14	.41	.68	0	1.20	0	2.43	2.27
39	Idaho	48.62	4.96	3.73	.39	.30	.18	0	0	.17	5.53	1.53	.75
40	Wyoming	11.13	6.44	5.73	.11	0	0	0	0	0	.42	.31	.19
41	Colorado	29.31	25.93	15.50	.24	.11	.02	17.52	8.90	4.61	8.64	6.56	3.99
42	New Mexico	3.66	2.44	1.81	.22	0	0	0	.48	0	.77	.36	.03
43	Arizona	22.70	7.94	4.00	0	0	0	.47	.18	.51	18.33	10.69	5.21
44	Utah	32.12	25.62	16.70	1.50	1.71	.05	13.52	9.84	.29	3.86	2.25	1.12
45	Nevada	75.99	64.23	4.56	0	0	0	0	0	0	35.65	20.88	0
	Pacific:												
46	Washington	4.44	39.80	4.43	4.10	1.13	.22	52.54	4.05	4.87	3.92	3.20	.74
47	Oregon	11.58	23.54	5.56	.75	.20	.18	35.58	.02	2.34	4.67	2.06	.20
48	California	103.41	47.45	13.78	.53	.28	.22	.67	8.07	4.09	4.75	3.00	1.09
49	New England	19.03	11.00	6.29	.89	.56	.26	15.32	13.22	8.25	20.28	11.99	3.40
50	Middle Atlantic	26.73	16.69	9.45	.22	.22	.18	13.84	14.05	7.89	22.47	14.12	6.48
51	East North Central	18.63	8.36	3.52	2.02	1.01	.91	11.99	11.03	5.16	17.08	10.61	3.25
52	West North Central	8.36	4.66	2.02	.79	.59	.44	6.38	5.45	3.04	4.07	2.48	.80
53	South Atlantic	7.68	3.09	1.22	.60	.40	.24	4.80	4.94	2.18	3.30	2.17	.93
54	East South Central	3.49	1.82	1.25	.56	.40	.22	4.43	3.37	1.11	2.75	1.45	.41
55	West South Central	3.48	2.37	1.61	.38	.24	.14	3.16	2.25	.96	1.55	.90	.28
56	Mountain	45.03	24.39	11.81	.47	.34	.09	7.28	4.25	1.73	6.53	4.38	2.25
57	Pacific	61.16	41.57	10.22	1.56	.49	.21	20.72	5.71	3.98	4.50	2.90	.86
	United States	17.65	9.76	4.46	.86	.51	.38	9.71	8.34	4.37	11.29	7.00	2.63

NOTE.—The apparent reduction from 1907 to 1912 in the output of commercial central stations in Oregon and Washington and the apparent increase in the same period in the output of electric railway stations arises from the fact that the Census Bureau classified the plants not operated by the Portland Railway, Light & Power Co. and by the Puget Sound Traction, Light & Power Co. as commercial central stations in 1907 and as electric railway stations in 1912. Both should properly have been classified as central stations in 1912.

No direct figures are available for electric power generated in manufacturing plants. Generator capacities by States for the years 1899, 1904, and 1909 are given in the Census of Manufactures for 1910. Electric power generated has been estimated by assuming that the ratio between power generated and generator capacity in manufacturing plants is the same as in central stations and electric railways, and that the generator capacities, by States, of manufacturing plants increased uniformly from 1899 to 1904 and from 1904 to 1909 and 1912.

TABLE 26.—ELECTRIC POWER GENERATED PER THOUSAND OF POPULATION, 1912, 1907, AND 1902—TOTAL, BY CENTRAL STATIONS, AND BY CENTRAL STATIONS AND STREET AND ELECTRIC RAILWAYS, BY STATES AND BY GEOGRAPHIC DIVISIONS, IN HORSEPOWER YEARS.

		Commercial and municipal central stations.			Central stations and street and electric railways.			Central stations, electric railways, and manufactures.		
		1912	1907	1902	1912	1907	1902	1912	1907	1902
	New England:									
1	Maine	23.83	13.91	4.78	34.86	20.04	10.35	44.18	26.72	14.10
2	New Hampshire	44.63	19.92	10.10	46.52	20.99	12.01	66.22	28.84	14.19
3	Vermont	24.16	13.02	9.91	27.10	14.81	10.71	33.62	17.32	11.87
4	Massachusetts	16.96	10.48	6.60	36.83	28.15	16.53	63.04	43.51	19.60
5	Rhode Island	16.76	10.70	7.94	33.52	28.06	19.99	47.70	38.51	24.62
6	Connecticut	17.25	9.79	4.31	29.87	21.10	13.06	46.89	32.09	17.97
	Middle Atlantic:									
7	New York	35.01	25.91	14.05	54.31	43.20	24.12	67.76	52.57	28.87
8	New Jersey	21.94	9.16	5.97	23.83	20.75	10.86	41.67	33.49	15.55
9	Pennsylvania	19.04	8.77	5.61	30.40	19.80	11.88	65.24	39.97	20.93
	East North Central:									
10	Ohio	12.48	7.25	4.56	31.62	22.25	11.20	53.64	36.53	15.69
11	Indiana	13.25	7.54	4.54	25.43	15.90	7.46	46.51	25.49	9.14
12	Illinois	30.31	13.25	4.96	40.81	26.75	10.81	59.77	39.78	14.88
13	Michigan	27.81	11.82	4.93	34.36	18.10	10.04	41.19	22.57	12.00
14	Wisconsin	13.80	3.57	2.16	21.16	9.43	5.42	31.47	15.26	7.66
	West North Central:									
15	Minnesota	13.27	6.77	3.40	19.64	14.60	6.69	22.32	16.10	7.30
16	Iowa	4.63	2.60	2.51	10.39	5.51	4.08	13.08	6.59	4.36
17	Missouri	10.71	6.96	2.79	23.02	17.78	9.28	29.92	22.61	10.80
18	North Dakota	2.97	2.50	2.40	2.98	2.51	2.40	3.12	2.64	2.52
19	South Dakota	6.07	3.92	1.49	6.06	3.92	1.48	6.18	4.01	1.54
20	Nebraska	7.07	4.24	1.73	11.96	6.89	3.44	13.82	8.24	4.28
21	Kansas	11.74	5.62	1.35	13.27	6.38	1.71	19.80	9.59	2.32
	South Atlantic:									
22	Delaware	2.53	3.66	2.27	19.20	9.51	8.56	35.82	15.18	10.36
23	Maryland and District of Columbia	5.96	7.14	3.80	14.18	21.28	10.57	16.88	25.07	12.81
24	Virginia	2.09	.78	.55	10.55	7.27	2.08	13.30	9.26	2.74
25	West Virginia	5.07	3.32	1.72	12.24	8.65	3.49	18.57	11.89	4.00
26	North Carolina	4.75	.96	.65	5.97	2.46	1.00	8.85	3.76	1.21
27	South Carolina	35.17	7.18	2.06	36.04	10.07	2.68	41.42	13.01	4.67
28	Georgia	4.98	3.64	.66	8.08	5.81	2.94	9.53	6.94	3.47
29	Florida	4.95	2.62	2.15	9.73	6.11	3.53	10.84	7.04	3.95
	East South Central:									
30	Kentucky	4.99	2.54	1.96	9.86	6.18	3.71	12.80	7.58	4.20
31	Tennessee	5.21	2.50	1.83	10.85	7.06	2.76	12.86	8.27	3.04
32	Alabama	3.38	2.31	.95	9.14	5.90	2.20	14.20	8.52	2.97
33	Mississippi	2.31	1.39	.94	3.14	2.69	1.23	3.77	3.10	1.29
	West South Central:									
34	Arkansas	1.67	1.17	1.12	4.00	2.85	1.63	4.66	3.29	1.81
35	Louisiana	1.64	2.57	1.86	9.33	9.07	4.93	12.88	11.09	5.50
36	Oklahoma	4.05	2.71	.60	5.40	2.93	.60	5.75	3.15	.63
37	Texas	5.59	3.17	2.32	7.99	4.62	2.82	9.60	5.48	3.08
	Mountain:									
38	Montana	143.29	62.21	20.59	143.97	62.22	21.79	143.97	64.64	24.06
39	Idaho	49.01	5.26	3.91	49.02	5.26	4.09	54.56	6.78	4.84
40	Wyoming	11.24	6.44	5.73	11.24	6.44	5.73	11.65	6.75	5.92
41	Colorado	29.55	26.04	15.52	47.07	34.94	20.13	55.71	41.50	24.12
42	New Mexico	3.88	2.44	1.81	3.88	2.92	1.81	4.65	3.28	1.84
43	Arizona	22.70	7.94	4.00	23.17	8.12	4.51	41.51	18.82	9.72
44	Utah	33.62	27.33	16.75	47.15	37.17	17.03	51.01	39.42	18.16
45	Nevada	75.99	64.23	4.56	75.99	64.23	4.56	111.66	85.11	4.56
	Pacific:									
46	Washington	8.54	40.93	4.65	61.08	44.98	9.53	65.01	48.17	10.26
47	Oregon	12.33	23.74	5.74	47.92	23.75	8.08	52.58	25.81	8.28
48	California	103.94	47.73	14.00	104.61	55.80	18.09	109.36	58.80	19.18
49	New England	19.92	11.56	6.55	35.24	24.78	14.81	55.52	36.77	18.21
50	Middle Atlantic	26.95	16.91	9.63	40.80	30.96	17.51	63.28	45.07	24.00
51	East North Central	20.65	9.37	4.43	32.64	20.40	9.58	49.73	31.01	12.83
52	West North Central	9.15	5.25	2.46	15 54	10.70	5.49	19.61	13.18	6.29
53	South Atlantic	8.28	3.49	1.46	13.08	8.44	3.64	16.38	10.60	4.58
54	East South Central	4.05	2.22	1.47	8.48	5.60	2.57	11.23	7.05	2.99
55	West South Central	3.86	2.61	1.75	7.02	4.86	2.72	8.57	7.56	2.99
56	Mountain	45.50	24.73	11.90	52.78	28.98	13.64	59.30	33.36	15.89
57	Pacific	62.72	42.06	10.43	83.45	47.76	14.41	87.95	50.66	15.27
	United States	18.51	10.27	4.84	28.23	18.61	9.21	39.52	25.62	11.84

NOTE.—The apparent reduction from 1907 to 1912 in the output of commercial central stations in Oregon and Washington and the apparent increase in the same period in the output of electric-railway stations arises from the fact that the Census Bureau classified the plants now operated by the Portland Railway, Light & Power Co. and by the Puget Sound Traction, Light & Power Co. as commercial central stations in 1907 and as electric-railway stations in 1912. Both should properly have been classified as central stations in 1912.

No direct figures are available for electric power generated in manufacturing plants. Generator capacities, by States, for the years 1899, 1904, and 1909 are given in the Census of Manufactures for 1910. Electric power generated has been estimated by assuming that the ratio between power generated and generator capacity in manufacturing plants is the same as in central stations and electric railways, and that the generator capacities, by States, of manufacturing plants increased uniformly from 1899 to 1904 and from 1904 to 1909 and 1912.

TABLE 27.—COMMERCIAL CENTRAL STATIONS—COST OF CONSTRUCTION, EQUIPMENT AND REAL ESTATE AND INCREASE IN COST BY PERIODS, BY STATES AND BY GEOGRAPHIC DIVISIONS.

		Total cost up to—			Increase in total cost from—		
		1912	1907	1902	1902 to 1912	1907 to 1912	1902 to 1907
	New England:						
1	Maine	$19,687,956	$12,443,798	$4,783,150	$14,904,806	$7,244,158	$7,660,648
2	New Hampshire	17,905,032	8,618,803	6,437,760	11,467,272	9,286,229	2,181,043
3	Vermont	9,277,420	6,652,907	2,338,721	6,938,699	2,624,513	4,314,186
4	Massachusetts	68,395,610	40,523,245	28,335,006	40,060,604	27,872,365	12,188,239
5	Rhode Island	11,330,919	7,295,943	5,405,877	5,925,042	4,034,976	1,890,066
6	Connecticut	21,350,244	12,696,303	6,448,145	14,902,099	8,653,941	6,248,158
	Middle Atlantic:						
7	New York	348,696,341	251,199,662	112,185,829	236,510,512	97,496,679	139,013,833
8	New Jersey	68,669,160	64,961,012	56,239,037	12,430,123	3,708,148	8,721,975
9	Pennsylvania	162,646,060	72,210,665	40,433,074	122,212,986	90,435,395	31,777,591
	East North Central:						
10	Ohio	64,625,010	39,132,506	24,392,342	40,232,668	25,492,504	14,740,164
11	Indiana	43,747,700	23,427,532	5,198,521	38,549,179	20,320,168	18,229,011
12	Illinois	147,782,820	82,195,708	34,601,709	113,181,111	65,587,112	47,593,999
13	Michigan	66,285,610	32,656,235	8,569,481	57,716,129	33,629,375	24,086,754
14	Wisconsin	34,661,074	9,381,298	4,253,016	30,408,058	25,279,776	5,128,282
	West North Central:						
15	Minnesota	41,767,683	22,192,753	8,080,703	33,686,980	19,574,930	14,112,050
16	Iowa	20,555,159	8,953,989	7,863,126	12,692,033	11,601,170	1,090,863
17	Missouri	46,350,586	32,554,571	14,834,273	31,516,313	13,796,015	17,720,298
18	North Dakota	4,598,964	1,474,985	313,388	4,285,576	3,123,979	1,161,597
19	South Dakota	10,985,158	2,607,668	537,521	10,447,637	8,377,490	2,070,147
20	Nebraska	11,565,718	6,863,096	3,151,856	8,413,862	4,702,622	3,711,240
21	Kansas	23,745,324	5,842,608	1,827,170	21,918,154	17,902,716	4,015,438
	South Atlantic:						
22	Delaware	1,116,519	2,656,280	319,814	796,705	−1,539,761	2,336,466
23	Maryland and District of Columbia	38,410,594	31,006,697	11,302,041	27,108,553	7,403,897	19,704,656
24	Virginia	9,517,318	1,338,257	823,429	8,693,889	8,179,061	514,828
25	West Virginia	13,280,643	2,582,063	968,983	12,311,660	10,698,580	1,613,080
26	North Carolina	10,722,951	1,425,512	575,059	10,147,892	9,297,439	850,453
27	South Carolina	33,436,891	8,390,856	2,312,836	31,124,055	25,046,035	6,078,020
28	Georgia	18,344,251	6,226,692	901,376	17,442,875	12,117,559	5,325,316
29	Florida	2,346,922	811,195	697,004	1,649,918	1,535,727	114,191
	East South Central:						
30	Kentucky	19,025,541	9,831,444	3,428,466	15,597,075	9,194,097	6,402,978
31	Tennessee	39,953,142	6,672,899	3,240,716	36,712,426	33,280,243	3,432,183
32	Alabama	7,975,241	6,804,059	798,605	7,176,636	1,171,182	6,005,454
33	Mississippi	3,815,530	1,321,554	595,518	3,220,012	2,493,976	726,036
	West South Central:						
34	Arkansas	4,242,013	1,505,602	972,385	3,269,628	2,736,411	533,217
35	Louisiana	13,693,106	11,137,261	5,849,003	7,844,103	2,555,845	5,288,258
36	Oklahoma	11,697,726	6,928,514	567,178	11,130,548	4,769,212	6,361,336
37	Texas	42,358,300	10,905,677	5,294,470	37,063,830	31,452,623	5,611,207
	Mountain:						
38	Montana	64,441,739	17,903,167	4,708,807	59,732,932	46,538,572	13,194,360
39	Idaho	32,245,940	3,203,567	778,100	31,467,840	29,042,373	2,425,467
40	Wyoming	2,167,032	942,326	467,463	1,699,569	1,224,706	474,863
41	Colorado	66,709,390	23,005,536	8,650,886	58,058,504	43,703,854	14,354,650
42	New Mexico	3,070,644	989,317	369,877	2,700,767	2,081,327	619,440
43	Arizona	9,258,049	1,672,589	810,341	8,447,708	7,585,460	862,248
44	Utah	11,095,475	4,813,440	7,512,281	3,583,194	6,282,035	−2,698,841
45	Nevada	12,977,000	4,299,631	301,785	12,675,215	8,677,369	3,997,846
	Pacific:						
46	Washington	16,316,527	18,621,544	3,003,142	13,313,385	−2,305,017	15,618,402
47	Oregon	23,230,309	14,281,632	5,108,613	18,121,696	8,948,677	9,173,019
48	California	342,534,781	110,871,577	36,131,996	306,402,785	231,663,204	74,739,581
49	New England	147,947,181	88,230,999	53,748,659	94,198,522	59,716,182	34,482,340
50	Middle Atlantic	580,011,561	388,371,339	208,857,940	371,153,621	191,640,222	179,513,399
51	East North Central	357,102,214	186,793,279	77,015,069	280,087,145	170,308,935	109,778,210
52	West North Central	159,568,592	80,489,670	36,608,037	122,960,555	79,078,922	43,881,633
53	South Atlantic	127,176,089	54,437,552	17,900,542	109,275,547	72,738,537	36,537,010
54	East South Central	70,769,454	24,629,956	8,063,305	62,706,149	46,139,498	16,566,651
55	West South Central	71,991,145	30,477,054	12,683,036	59,308,109	41,514,091	17,794,018
56	Mountain	201,965,269	56,829,573	23,599,540	178,365,729	145,135,696	33,230,033
57	Pacific	382,081,617	143,774,753	44,243,751	337,837,866	238,306,864	99,531,002
	United States	2,098,613,122	1,054,034,175	482,719,879	1,615,893,243	1,044,578,947	571,314,296

NOTE.—Amounts for Maryland, Delaware, and District of Columbia are combined in the reports of the Census Bureau for all years and for all classes of stations, and for Idaho, Montana, and Rhode Island for municipal stations in 1907. Amounts for the individual State have been estimated on the assumption that total amounts are in proportion to total primary power.

TABLE 28.—COMMERCIAL CENTRAL STATIONS—COST OF CONSTRUCTION, EQUIPMENT AND REAL ESTATE, PER THOUSAND OF POPULATION AND PER HORSEPOWER OF PRIMARY POWER, AND PERCENTAGE INCREASE IN COST BY PERIODS, BY STATES AND BY GEOGRAPHIC DIVISIONS.

		Per thousand of population up to—			Per horsepower of primary power up to—			Percentage increase.		
		1912	1907	1902	1912	1907	1902	1902 to 1912.	1907 to 1912.	1902 to 1907.
	New England:									
1	Maine	$26,142	$17,074	$6,788	$226	$224	$197	312	53	160
2	New Hampshire	41,182	20,270	15,491	216	188	230	178	108	34
3	Vermont	25,862	18,874	6,756	213	198	115	297	39	177
4	Massachusetts	19,589	12,631	9,691	211	235	240	141	69	49
5	Rhode Island	19,946	14,294	11,945	225	262	309	110	55	35
6	Connecticut	18,389	12,023	6,773	213	246	235	231	68	97
	Middle Atlantic:									
7	New York	36,613	29,240	14,651	305	354	353	211	39	124
8	New Jersey	25,593	27,621	27,816	290	707	831	22	6	16
9	Pennsylvania	20,412	9,922	6,134	271	250	242	302	125	79
	East North Central:									
10	Ohio	13,184	8,515	5,691	216	261	284	165	65	60
11	Indiana	15,955	8,844	2,035	284	243	127	741	86	351
12	Illinois	25,389	15,198	6,927	249	306	327	327	80	138
13	Michigan	22,882	12,096	3,423	201	214	190	674	103	281
14	Wisconsin	14,485	4,113	2,001	264	191	131	715	269	121
	West North Central:									
15	Minnesota	19,443	1,185	4,441	329	212	325	417	88	175
16	Iowa	9,246	4,020	3,526	372	242	234	161	130	14
17	Missouri	13,905	10,043	4,716	280	328	386	213	42	119
18	North Dakota	7,246	2,926	838	329	167	105	1,367	212	371
19	South Dakota	17,585	4,899	1,223	437	232	123	1,944	321	385
20	Nebraska	9,481	5,932	2,884	286	266	290	267	69	118
21	Kansas	13,646	3,587	1,204	290	143	156	1,200	306	220
	South Atlantic:									
22	Delaware	5,412	13,455	1,699	368	413	414	249	−58	731
23	Maryland and District of Columbia	23,112	19,612	7,535	368	413	414	240	24	174
24	Virginia	4,515	668	434	197	124	195	1,056	611	63
25	West Virginia	10,375	2,251	956	320	130	103	1,271	414	166
26	North Carolina	4,712	673	293	195	103	127	1,765	652	148
27	South Carolina	21,503	5,724	1,680	156	103	116	1,346	298	263
28	Georgia	6,802	2,493	392	259	139	92	1,935	195	591
29	Florida	2,924	1,177	1,210	141	127	165	237	189	16
	East South Central:									
30	Kentucky	8,194	4,369	1,574	256	263	175	455	94	187
31	Tennessee	17,979	3,121	1,577	693	305	213	1,133	499	106
32	Alabama	3,613	3,318	422	284	311	120	899	17	752
33	Mississippi	2,061	765	372	191	180	125	541	189	122
	West South Central:									
34	Arkansas	2,598	1,004	711	213	136	132	336	182	55
35	Louisiana	7,971	7,053	4,062	643	586	472	134	23	90
36	Oklahoma	6,319	4,907	583	279	339	140	1,962	69	1,122
37	Texas	10,365	2,982	1,640	357	158	162	700	288	106
	Mountain:									
38	Montana	158,843	52,889	17,357	561	261	149	1,268	260	280
39	Idaho	89,028	11,472	3,963	583	239	143	4,044	906	312
40	Wyoming	13,724	7,196	4,499	191	184	145	364	130	102
41	Colorado	77,843	31,702	14,554	509	282	227	671	190	166
42	New Mexico	8,607	3,410	1,658	299	217	208	730	210	167
43	Arizona	41,591	9,228	5,782	419	216	319	1,043	453	106
44	Utah	28,088	13,911	25,285	197	145	369	48	131	−36
45	Nevada	143,045	60,820	5,959	842	616	176	4,200	202	1,325
	Pacific:									
46	Washington	12,727	19,285	4,622	426	301	135	443	−12	520
47	Oregon	31,793	23,824	10,912	562	113	292	355	63	180
48	California	132,904	52,176	21,596	408	292	272	848	209	207
49	New England	21,860	14,047	9,275	215	228	228	175	68	64
50	Middle Atlantic	28,739	21,314	12,837	293	356	378	178	49	86
51	East North Central	19,033	10,608	4,679	237	261	249	364	91	143
52	West North Central	13,375	7,142	3,447	309	246	288	336	98	120
53	South Atlantic	10,102	4,653	1,656	229	210	223	610	134	204
54	East South Central	8,226	3,016	1,043	393	278	174	778	187	205
55	West South Central	7,751	3,741	1,810	357	255	225	468	136	140
56	Mountain	70,916	24,060	12,573	485	257	225	756	255	141
57	Pacific	83,259	38,962	15,851	416	253	256	764	186	225
	United States	21,972	12,048	6,082	301	279	286	335	99	118

NOTE.—Amounts for Maryland, Delaware, and District of Columbia are combined in the reports of the Census Bureau for all years and for all classes of stations, and for Idaho, Montana, and Rhode Island for municipal stations in 1907. Amounts for the individual State have been estimated on the assumption that total amounts are in proportion to total primary power.

TABLE 29.—MUNICIPAL CENTRAL STATIONS—COST OF CONSTRUCTION, EQUIPMENT, AND REAL ESTATE, TOTAL, PER THOUSAND OF POPULATION AND PER HORSEPOWER OF PRIMARY POWER, BY STATES AND BY GEOGRAPHIC DIVISIONS.

		Total cost up to—			Cost per thousand of population up to—			Cost per horsepower of primary power up to—		
		1912	1907	1902	1912	1907	1902	1912	1907	1902
	New England:									
1	Maine	$238,336	$185,303	$41,700	$316	$254	$59	$96	$83	$73
2	New Hampshire	156,544	76,849	9,800	360	181	24	126	84	65
3	Vermont	750,180	581,591	352,449	2,091	1,650	1,018	111	118	102
4	Massachusetts	3,311,628	2,755,981	1,227,261	948	859	420	127	174	196
5	Rhode Island	8,375	17,323	22,919	15	34	51	84	173	229
6	Connecticut	1,056,014	719,708	135,382	910	682	142	113	157	150
	Middle Atlantic:									
7	New York	1,830,563	1,532,127	812,949	192	178	106	136	120	130
8	New Jersey	389,221	258,433	193,465	145	110	96	141	152	178
9	Pennsylvania	1,876,016	1,697,084	1,146,264	235	233	174	122	125	141
	East North Central:									
10	Ohio	4,618,884	3,424,494	1,989,055	942	745	464	122	116	111
11	Indiana	4,182,552	2,253,178	1,507,989	1,525	851	590	134	110	114
12	Illinois	14,321,406	5,946,525	3,727,566	2,460	1,100	746	281	193	176
13	Michigan	6,479,220	4,344,825	2,989,688	2,237	1,609	1,194	139	138	150
14	Wisconsin	1,871,597	1,097,057	425,300	782	486	200	135	111	131
	West North Central:									
15	Minnesota	2,593,227	1,945,328	1,155,802	1,207	980	635	122	112	116
16	Iowa	1,571,359	1,032,677	691,108	707	464	310	118	105	118
17	Missouri	2,274,124	1,311,189	845,599	682	405	269	135	109	123
18	North Dakota	282,668	145,012	103,455	445	288	277	129	102	108
19	South Dakota	332,883	198,695	85,983	533	373	195	127	112	125
20	Nebraska	1,405,598	508,985	153,984	1,152	440	141	120	120	108
21	Kansas	2,278,484	747,197	196,716	1,309	459	130	138	99	128
	South Atlantic:									
22	Delaware	124,379	109,611	83,562	603	555	444	77	82	103
23	Maryland and District of Columbia	318,930	238,280	120,339	192	151	80	77	97	125
24	Virginia	1,410,061	452,014	215,918	669	226	114	126	117	178
25	West Virginia	109,530	100,872	154,466	86	88	152	65	64	106
26	North Carolina	1,367,280	816,279	228,877	601	385	117	139	120	112
27	South Carolina	575,477	412,526	130,153	370	281	95	145	158	103
28	Georgia	1,546,674	1,127,594	351,202	574	451	153	90	113	126
29	Florida	1,681,786	818,866	277,421	2,095	1,188	483	98	103	147
	East South Central:									
30	Kentucky	683,482	524,644	241,686	294	233	111	91	114	129
31	Tennessee	1,564,274	841,434	362,372	704	394	176	138	123	96
32	Alabama	751,535	489,817	110,290	341	239	58	117	108	118
33	Mississippi	1,195,829	899,108	303,959	646	520	190	114	110	105
	West South Central:									
34	Arkansas	569,866	417,056	110,120	349	278	81	95	143	101
35	Louisiana	582,163	476,860	207,600	339	302	144	99	111	150
36	Oklahoma	1,654,914	202,350	30,338	894	143	31	138	92	84
37	Texas	1,254,686	407,852	216,021	307	112	67	158	139	96
	Mountain:									
38	Montana	141,652	60,629	32,000	349	179	118	153	173	128
39	Idaho	236,626	49,370	6,930	653	177	35	215	173	.....
40	Wyoming	33,000	0	0	209	0	0	120	.....	.....
41	Colorado	279,752	120,643	14,940	326	166	25	96	124	124
42	New Mexico	63,116	0	0	177	0	0	86	.....	.....
43	Arizona	0	0	0	0	0	0	.....	.....	.....
44	Utah	460,021	335,156	9,499	1,165	969	32	108	123	76
45	Nevada	16,362	0	0	181	0	0	.....	.....	.....
	Pacific:									
46	Washington	6,194,001	2,168,305	533,880	4,831	2,245	822	108	401	890
47	Oregon	566,438	121,646	49,038	775	203	105	121	201	157
48	California	1,854,451	908,974	415,478	720	428	248	194	174	197
49	New England	5,521,077	4,336,755	1,789,461	816	690	309	120	152	156
50	Middle Atlantic	4,095,800	3,487,644	2,152,678	203	191	132	129	125	141
51	East North Central	31,473,659	17,066,079	10,639,598	1,678	969	646	174	140	141
52	West North Central	10,738,343	5,889,083	3,232,647	900	523	304	127	109	118
53	South Atlantic	7,134,097	4,076,042	1,561,938	567	348	144	107	112	126
54	East South Central	4,195,120	2,755,003	1,018,307	488	337	132	117	114	108
55	West South Central	4,061,629	1,504,118	564,079	437	185	81	128	122	111
56	Mountain	1,230,329	565,798	63,369	432	240	34	121	131	128
57	Pacific	8,614,890	3,198,925	998,396	1,877	867	358	120	285	330
	United States	77,065,144	42,879,447	22,020,473	807	490	277	138	133	138

NOTE.—Amounts for Maryland, Delaware, and District of Columbia are combined in the reports of the Census Bureau for all years and for all classes of stations, and for Idaho, Montana, and Rhode Island for municipal stations in 1907. Amounts for the individual State have been estimated on the assumption that total amounts are in proportion to total primary power.

TABLE 30.—COMMERCIAL AND MUNICIPAL CENTRAL STATIONS—COST OF CONSTRUCTION, EQUIPMENT, AND REAL ESTATE, AND INCREASE IN COST BY PERIODS, BY STATES AND BY GEOGRAPHIC DIVISIONS.

		Total cost up to—			Increase in total cost from—		
		1912	1907	1902	1902 to 1912	1907 to 1912	1902 to 1907
	New England:						
1	Maine	$19,926,292	$12,629,101	$4,824,850	$15,101,442	$7,297,191	$7,804,251
2	New Hampshire	18,061,576	8,695,652	6,447,560	11,614,016	9,365,924	2,248,092
3	Vermont	10,027,600	7,234,498	2,691,170	7,336,430	2,793,102	4,543,328
4	Massachusetts	71,707,238	43,279,226	29,562,267	42,144,971	28,428,012	13,716,959
5	Rhode Island	11,339,294	7,327,862	5,428,796	5,910,498	4,011,432	1,899,066
6	Connecticut	22,406,258	13,416,011	6,583,477	15,822,781	8,990,247	6,832,534
	Middle Atlantic:						
7	New York	350,526,904	252,731,789	112,998,778	237,528,126	97,795,115	139,733,011
8	New Jersey	69,058,381	65,219,445	56,432,502	12,625,879	3,838,936	8,786,943
9	Pennsylvania	164,522,076	73,907,749	41,579,338	122,942,738	90,614,327	32,328,411
	East North Central:						
10	Ohio	69,243,894	42,557,000	26,381,397	42,862,497	26,686,894	16,175,603
11	Indiana	47,930,252	25,680,710	6,706,510	41,223,742	22,249,542	18,974,200
12	Illinois	162,104,226	88,142,233	38,329,275	123,774,951	73,961,993	49,812,958
13	Michigan	72,764,830	37,001,060	11,559,169	61,205,661	35,763,770	25,441,891
14	Wisconsin	36,532,671	10,478,355	4,678,316	31,854,355	26,054,316	5,800,039
	West North Central:						
15	Minnesota	44,360,910	24,138,081	9,236,505	35,124,405	20,222,829	14,901,576
16	Iowa	22,126,518	9,986,666	8,554,234	13,572,284	12,139,852	1,432,432
17	Missouri	48,624,710	33,865,760	15,679,872	32,944,838	14,758,950	18,185,888
18	North Dakota	4,881,632	1,619,997	416,843	4,464,789	3,261,635	1,203,154
19	South Dakota	11,318,041	2,806,363	623,504	10,694,537	8,511,678	2,182,859
20	Nebraska	12,971,316	7,372,081	3,305,840	9,665,476	5,599,235	4,066,241
21	Kansas	26,023,808	6,589,805	2,023,886	23,999,922	19,434,003	4,565,919
	South Atlantic:						
22	Delaware	1,644,019	3,098,392	627,660	1,016,359	−1,454,373	2,470,732
23	Maryland and District of Columbia	38,326,403	30,912,476	11,198,096	27,128,307	7,413,927	19,714,380
24	Virginia	10,927,379	1,790,271	1,039,347	9,888,032	9,137,108	750,924
25	West Virginia	13,390,173	2,682,935	1,123,449	12,266,724	10,707,238	1,559,486
26	North Carolina	12,090,231	2,241,791	803,936	11,286,295	9,848,440	1,437,855
27	South Carolina	34,012,368	8,803,382	2,442,989	31,569,379	25,208,986	6,360,393
28	Georgia	19,890,925	7,354,286	1,252,578	18,638,347	12,536,639	6,101,708
29	Florida	4,028,688	1,630,061	974,425	3,054,263	2,398,627	655,636
	East South Central:						
30	Kentucky	19,709,023	10,356,088	3,670,152	16,038,871	9,352,935	6,685,936
31	Tennessee	41,517,416	7,514,333	3,603,088	37,914,328	34,003,083	3,911,245
32	Alabama	8,726,776	7,293,876	908,895	7,817,881	1,432,900	6,384,981
33	Mississippi	5,011,359	2,220,662	899,477	4,111,882	2,790,697	1,321,185
	West South Central:						
34	Arkansas	4,811,879	1,922,658	1,082,505	3,729,374	2,889,221	840,153
35	Louisiana	14,275,269	11,614,121	6,056,603	8,218,666	2,661,148	5,557,518
36	Oklahoma	13,352,640	7,130,864	597,516	12,755,124	6,221,776	6,533,348
37	Texas	43,612,986	11,313,529	5,510,491	38,102,495	32,299,457	5,803,038
	Mountain:						
38	Montana	64,583,391	17,950,677	4,740,807	59,842,584	46,632,714	13,209,870
39	Idaho	32,482,566	3,251,460	785,030	31,697,536	29,231,106	2,466,430
40	Wyoming	2,200,032	942,326	467,463	1,732,569	1,257,706	474,863
41	Colorado	66,989,142	23,126,179	8,665,826	58,323,316	43,862,963	14,460,353
42	New Mexico	3,133,760	989,317	369,877	2,763,883	2,144,443	619,440
43	Arizona	9,258,049	1,672,589	810,341	8,447,708	7,585,460	862,248
44	Utah	11,555,496	5,148,596	7,521,780	4,033,716	6,406,900	−2,373,184
45	Nevada	12,993,362	4,299,631	301,785	12,691,577	8,693,731	3,997,846
	Pacific:						
46	Washington	22,510,528	20,789,849	3,537,022	18,973,506	1,720,679	17,252,827
47	Oregon	23,796,747	14,403,278	5,157,651	18,639,096	9,393,469	9,245,627
48	California	344,389,232	111,780,551	36,547,474	307,841,758	232,608,681	75,233,077
49	New England	153,468,258	92,582,350	55,538,120	97,930,138	60,885,908	37,044,230
50	Middle Atlantic	584,107,361	391,858,983	211,010,618	373,096,743	192,248,378	180,848,365
51	East North Central	388,575,873	203,859,358	87,654,667	300,921,206	184,716,515	116,204,691
52	West North Central	170,306,935	86,378,753	39,840,684	130,466,251	83,928,182	46,538,069
53	South Atlantic	134,310,186	58,513,594	19,462,480	114,847,706	75,796,592	39,051,114
54	East South Central	74,964,574	27,384,959	9,081,612	65,882,962	47,579,615	18,303,347
55	West South Central	76,052,774	31,981,172	13,247,115	62,805,659	44,071,602	18,734,057
56	Mountain	203,195,798	57,380,775	23,662,909	179,532,889	145,815,023	33,717,866
57	Pacific	390,696,507	146,973,678	45,242,147	345,454,360	243,722,829	101,731,531
	United States	2,175,678,266	1,096,913,622	504,740,352	1,670,937,914	1,078,764,644	592,173,270

NOTE.—Amounts for Maryland, Delaware, and District of Columbia are combined in the reports of the Census Bureau for all years and for all classes of stations, and for Idaho, Montana, and Rhode Island for municipal stations in 1907. Amounts for the individual State have been estimated on the assumption that total amounts are in proportion to total primary power.

TABLE 31.—COMMERCIAL AND MUNICIPAL CENTRAL STATIONS—COST OF CONSTRUCTION, EQUIPMENT, AND REAL ESTATE, PER THOUSAND OF POPULATION AND PER HORSEPOWER OF PRIMARY POWER, AND PERCENTAGE INCREASE IN COST BY PERIODS, BY STATES AND BY GEOGRAPHIC DIVISIONS.

		Per thousand of population up to—			Per horsepower of primary power up to—			Percentage increase		
		1912	1907	1902	1912	1907	1902	1902 to 1912	1907 to 1912	1902 to 1907
	New England:									
1	Maine	$26,458	$17,328	$6,847	$222	$218	$194	313	58	162
2	New Hampshire	41,543	20,451	15,514	214	186	229	180	108	35
3	Vermont	27,956	20,522	7,774	199	188	113	273	39	169
4	Massachusetts	20,537	13,490	10,110	204	230	238	143	66	46
5	Rhode Island	19,960	14,357	11,995	225	262	308	109	55	35
6	Connecticut	19,298	12,705	6,915	204	239	232	240	67	104
	Middle Atlantic:									
7	New York	36,805	29,418	14,758	303	350	349	210	39	124
8	New Jersey	25,738	27,731	27,912	288	697	821	22	6	16
9	Pennsylvania	20,648	10,155	6,308	267	244	237	296	123	78
	East North Central:									
10	Ohio	14,126	9,260	6,155	205	238	254	162	63	61
11	Indiana	17,480	9,695	2,625	258	220	124	615	87	283
12	Illinois	27,849	16,297	7,674	251	295	302	323	84	130
13	Michigan	25,118	13,705	4,618	193	201	178	530	97	220
14	Wisconsin	15,267	4,639	2,202	251	178	131	681	249	124
	West North Central:									
15	Minnesota	20,650	12,166	5,075	300	198	265	380	84	161
16	Iowa	9,953	4,484	3,836	287	214	217	159	122	17
17	Missouri	14,588	10,448	4,985	267	3 4	346	210	44	116
18	North Dakota	7,692	3,214	1,116	302	158	106	1,071	201	289
19	South Dakota	18,118	5,271	1,417	408	216	123	1,715	303	350
20	Nebraska	10,632	6,372	3,024	249	246	269	292	76	123
21	Kansas	14,956	4,046	1,334	265	136	152	1,186	295	256
	South Atlantic:									
22	Delaware	7,969	15,694	3,332	354	399	396	162	− 47	394
23	Maryland and District of Columbia	23,061	19,552	7,466	354	399	396	242	24	176
24	Virginia	5,184	894	548	183	122	191	951	510	72
25	West Virginia	10,460	2,339	1,108	310	125	104	1,092	399	139
26	North Carolina	5,312	1,058	410	186	108	122	1,404	439	179
27	South Carolina	21,873	6,005	1,774	156	105	115	1,292	286	260
28	Georgia	7,376	2,944	545	226	134	99	1,488	170	487
29	Florida	5,019	2,365	1,692	119	113	159	313	147	67
	East South Central:									
30	Kentucky	8,489	4,602	1,686	241	247	171	437	90	182
31	Tennessee	18,683	3,514	1,753	602	262	190	1,052	453	109
32	Alabama	3,954	3,557	480	253	276	119	860	20	702
33	Mississippi	2,706	1,285	561	164	143	117	457	126	147
	West South Central:									
34	Arkansas	2,947	1,282	792	186	138	128	344	150	78
35	Louisiana	8,309	7,355	4,206	526	499	440	136	23	92
36	Oklahoma	7,213	5,050	614	248	315	136	2,135	87	1,093
37	Texas	10,672	3,093	1,707	344	157	158	692	286	105
	Mountain:									
38	Montana	159,191	53,031	17,475	558	261	149	1,262	260	279
39	Idaho	89,682	11,640	3,999	576	237	144	4,038	899	314
40	Wyoming	13,933	7,196	4,504	190	184	145	371	133	102
41	Colorado	78,169	31,868	14,579	500	281	226	673	190	167
42	New Mexico	8,784	3,410	1,657	284	217	208	747	217	167
43	Arizona	41,591	9,228	5,784	419	216	319	1,042	453	106
44	Utah	29,253	14,882	25,318	191	143	368	54	124	− 32
45	Nevada	143,222	60,820	5,955	843	616	175	4,206	202	1,325
	Pacific:									
46	Washington	17,559	21,530	5,444	235	309	155	536	8	488
47	Oregon	32,569	24,026	11,016	517	114	290	361	65	179
48	California	133,623	52,604	21,844	406	291	271	842	208	206
49	New England	22,675	14,740	9,584	209	223	225	176	66	67
50	Middle Atlantic	28,943	21,505	12,969	290	350	372	177	49	86
51	East North Central	20,711	11,577	5,325	230	243	227	343	91	133
52	West North Central	14,275	7,664	3,751	283	226	258	328	97	117
53	South Atlantic	10,668	5,001	1,800	216	198	210	590	130	201
54	East South Central	8,713	3,353	1,175	348	243	163	726	174	202
55	West South Central	8,188	3,925	1,890	326	243	215	474	138	141
56	Mountain	71,348	24,293	12,607	476	255	225	759	254	143
57	Pacific	85,137	39,829	16,210	395	254	258	764	166	225
	United States	22,779	12,538	6,360	289	268	274	331	98	117

NOTE.—Amounts for Maryland, Delaware, and District of Columbia are combined in the reports of the Census Bureau for all years and for all classes of stations, and for Idaho, Montana, and Rhode Island for municipal stations in 1907. Amounts for the individual State have been estimated on the assumption that total amounts are in proportion to total primary power.

TABLE 37.—COMMERCIAL CENTRAL STATIONS—STOCKS AND BONDS OUTSTANDING AND INCREASE BY PERIODS, BY STATES AND BY GEOGRAPHIC DIVISIONS.

		Total stocks and bonds.			Increase in stocks and bonds from—		
		1912	1907	1902	1902 to 1912	1907 to 1912	1902 to 1907
	New England:						
1	Maine	$19,819,541	$15,909,655	$4,510,410	$15,309,131	$3,909,886	$11,399,245
2	New Hampshire	17,966,502	10,366,900	6,617,400	11,349,102	7,599,602	3,749,500
3	Vermont	8,494,839	7,836,725	1,862,920	6,631,919	658,114	5,973,805
4	Massachusetts	38,195,577	47,476,500	21,412,506	16,783,071	−9,280,923	26,063,994
5	Rhode Island	11,727,800	7,170,000	3,917,500	7,810,300	4,557,800	3,252,500
6	Connecticut	18,154,913	12,924,150	7,239,475	10,915,438	5,230,763	5,684,675
	Middle Atlantic:						
7	New York	309,471,635	293,037,642	190,300,149	119,171,486	16,433,993	102,737,493
8	New Jersey	70,710,087	45,291,240	58,844,336	11,865,751	25,418,847	−13,553,096
9	Pennsylvania	165,923,439	108,323,447	78,636,619	87,286,820	57,599,992	29,686,828
	East North Central:						
10	Ohio	52,871,459	49,813,950	24,839,632	28,031,827	3,057,509	24,974,318
11	Indiana	43,043,904	28,446,123	5,910,098	37,133,806	14,597,781	22,536,025
12	Illinois	148,330,461	101,802,550	35,889,835	112,440,626	46,527,911	65,912,715
13	Michigan	60,092,598	37,396,162	8,584,570	51,508,028	22,696,436	28,811,592
14	Wisconsin	35,412,593	15,636,925	4,017,405	31,395,188	19,775,668	11,619,520
	West North Central:						
15	Minnesota	51,084,602	33,428,215	8,109,500	42,975,102	17,656,387	25,318,715
16	Iowa	20,713,305	13,970,500	7,405,650	13,307,655	6,742,805	6,564,850
17	Missouri	42,142,991	53,654,048	16,245,020	25,897,971	−11,511,057	37,409,028
18	North Dakota	7,431,600	2,010,300	91,000	7,340,600	5,421,300	1,919,300
19	South Dakota	10,647,054	4,563,250	875,250	9,771,804	6,083,804	3,688,000
20	Nebraska	11,166,966	10,417,550	3,197,450	7,969,516	749,116	7,220,400
21	Kansas	24,347,704	7,877,600	1,497,350	22,850,354	16,470,104	6,380,250
	South Atlantic:						
22	Delaware	1,185,922	4,661,964	349,148	836,774	−3,476,042	4,312,816
23	Maryland and District of Columbia	40,798,472	54,419,259	12,339,086	28,459,386	−13,620,787	42,080,173
24	Virginia	8,635,594	1,393,500	804,800	7,830,794	7,242,094	588,700
25	West Virginia	12,341,865	3,549,325	626,950	11,714,915	8,792,540	2,922,375
26	North Carolina	10,002,482	1,571,100	882,600	9,119,882	8,431,382	688,500
27	South Carolina	39,681,829	13,140,160	2,128,150	37,553,679	26,541,669	11,012,010
28	Georgia	16,245,891	8,891,850	810,400	15,435,491	7,354,041	8,081,450
29	Florida	1,980,610	1,832,543	420,500	1,560,110	148,067	1,412,043
	East South Central:						
30	Kentucky	18,361,902	11,061,300	3,912,100	14,449,802	7,300,602	7,149,200
31	Tennessee	39,341,717	6,664,050	3,121,950	36,219,767	32,677,667	3,542,100
32	Alabama	7,538,850	8,123,250	1,597,600	5,941,250	−584,400	6,525,650
33	Mississippi	3,696,012	1,179,250	429,100	3,266,912	2,516,762	750,150
	West South Central:						
34	Arkansas	3,335,018	1,886,600	979,275	2,355,743	1,448,418	907,325
35	Louisiana	11,818,460	4,377,700	6,782,200	5,036,260	7,440,760	−2,404,500
36	Oklahoma	11,777,957	8,905,875	820,500	10,957,457	2,872,082	8,085,375
37	Texas	37,916,814	12,932,012	4,785,600	33,131,214	24,984,802	8,146,412
	Mountain:						
38	Montana	66,363,164	19,822,200	8,358,700	58,004,464	46,540,964	11,463,500
39	Idaho	44,389,331	7,479,809	1,016,200	43,373,131	36,909,522	6,463,609
40	Wyoming	1,923,460	1,142,775	450,766	1,472,694	780,685	692,009
41	Colorado	65,848,308	26,086,660	15,341,950	50,506,358	39,761,648	10,744,710
42	New Mexico	3,119,900	1,507,500	445,900	2,674,000	1,612,400	1,061,600
43	Arizona	9,880,285	3,206,700	1,177,000	8,703,285	6,673,585	2,029,700
44	Utah	9,483,718	4,308,838	8,394,980	1,088,738	5,174,880	−4,086,142
45	Nevada	5,092,225	5,113,500	288,000	4,804,225	−21,275	4,825,500
	Pacific:						
46	Washington	17,261,756	21,108,330	3,153,000	14,108,756	−3,846,574	17,955,330
47	Oregon	23,472,922	14,400,300	7,037,300	16,435,622	9,072,622	7,363,000
48	California	373,250,663	185,875,100	51,058,045	322,192,618	187,375,563	134,817,055
49	New England	114,359,172	101,683,930	45,560,211	68,798,961	12,675,242	56,123,719
50	Middle Atlantic	546,105,161	446,652,329	327,781,104	218,324,057	99,452,832	118,871,225
51	East North Central	339,751,015	233,095,710	79,241,540	260,509,475	106,655,305	153,854,170
52	West North Central	167,534,222	125,921,763	37,421,220	130,113,002	41,612,459	88,500,543
53	South Atlantic	130,872,665	89,459,701	18,361,634	112,511,031	41,412,964	71,098,067
54	East South Central	68,938,481	27,027,850	9,060,750	59,877,731	41,910,631	17,967,100
55	West South Central	64,848,249	28,102,187	13,367,575	51,480,674	36,746,062	14,734,612
56	Mountain	206,100,391	68,667,982	35,473,496	170,626,895	137,432,409	33,194,486
57	Pacific	413,985,341	221,383,730	61,248,345	352,736,996	192,601,611	160,135,385
	United States	2,052,494,697	1,341,995,182	627,515,875	1,424,978,822	710,499,515	714,479,307

NOTE.—Amounts for Maryland, Delaware, and District of Columbia are combined in the reports of the Census Bureau for all years and for all classes of stations, and for Idaho, Montana, and Rhode Island for municipal stations in 1907. Amounts for the individual State have been estimated on the assumption that total amounts are in proportion to total primary power.

TABLE 33.—COMMERCIAL CENTRAL STATIONS—STOCKS AND BONDS OUTSTANDING PER THOUSAND OF POPULATION AND PER HORSEPOWER OF PRIMARY POWER, AND PERCENTAGE INCREASE IN STOCKS AND BONDS BY PERIODS: BY STATES AND BY GEOGRAPHIC DIVISIONS.

		Per thousand of population.			Per horsepower of primary power.			Percentage increase.		
		1912	1907	1902	1912	1907	1902	1902 to 1912	1907 to 1912	1902 to 1907
	New England:									
1	Maine	$26,317	$21,830	$6,401	$227	$286	$186	339	25	253
2	New Hampshire	41,324	24,381	15,922	217	226	237	172	73	57
3	Vermont	23,682	22,233	5,381	195	233	91	356	8	321
4	Massacusettts	10,939	14,799	7,323	118	275	181	78	−20	122
5	Rhode Island	20,645	14,047	8,657	233	257	224	199	64	83
6	Connecticut	15,637	12,239	7,604	181	250	263	151	41	79
	Middle Atlantic:									
7	New York	32,495	34,110	24,353	270	413	600	63	6	54
8	New Jersey	26,354	19,258	29,104	299	493	869	20	56	−23
9	Pennsylvania	20,823	14,884	11,929	276	375	470	111	53	38
	East North Central:									
10	Ohio	10,786	10,840	5,795	177	333	290	113	6	101
11	Indiana	15,698	10,738	2,313	279	295	144	628	51	381
12	Illinois	25,483	18,823	7,185	249	379	340	313	46	184
13	Michigan	20,744	13,851	3,430	182	245	191	600	61	336
14	Wisconsin	14,799	6,922	1,800	269	319	124	782	126	289
	West North Central:									
15	Minnesota	23,780	16,848	4,456	403	320	326	530	53	312
16	Iowa	9,317	6,273	3,321	325	378	220	180	48	89
17	Missouri	12,643	16,552	5,164	255	540	423	159	−22	230
18	North Dakota	11,709	3,987	244	532	227	31	8,067	270	2,109
19	South Dakota	17,044	8,572	1,989	424	407	200	1,117	133	421
20	Nebraska	9,154	9,004	2,925	276	404	294	249	7	226
21	Kansas	13,993	4,836	987	298	193	128	1,526	209	426
	South Atlantic:									
22	Delaware	5,749	23,617	1,852	391	724	452	240	−75	1,235
23	Maryland and District of Columbia	24,548	34,420	8,226	391	724	452	231	−25	341
24	Virginia	4,097	696	424	179	130	190	973	520	73
25	West Virginia	9,642	3,094	618	297	179	67	1,868	230	466
26	North Carolina	4,395	742	451	181	113	195	1,033	537	78
27	South Carolina	25,519	8,963	1,545	185	161	107	1,765	202	517
28	Georgia	6,024	3,559	352	229	199	82	1,905	83	997
29	Florida	2,468	2,659	729	119	286	99	371	8	336
	East South Central:									
30	Kentucky	7,909	4,916	1,797	247	296	200	369	66	183
31	Tennessee	17,704	3,117	1,519	682	304	205	1,160	490	113
32	Alabama	3,416	3,961	844	269	371	239	372	−7	408
33	Mississippi	1,996	682	268	185	160	90	761	213	175
	West South Central:									
34	Arkansas	2,042	1,258	716	168	171	133	241	77	93
35	Louisiana	6,879	2,773	4,709	555	230	547	74	170	−35
36	Oklahoma	6,362	6,307	842	281	436	203	1,335	32	985
37	Texas	9,278	3,536	1,483	319	188	147	692	193	170
	Mountain:									
38	Montana	163,578	58,558	30,811	578	290	264	694	235	137
39	Idaho	122,554	26,781	5,176	803	558	186	4,269	493	636
40	Wyoming	12,179	8,732	4,345	170	223	140	327	68	154
41	Colorado	76,838	35,948	25,811	502	320	402	329	152	70
42	New Mexico	8,744	5,200	1,998	304	332	251	600	107	238
43	Arizona	44,385	17,689	8,401	447	414	463	739	208	172
44	Utah	24,010	12,454	28,257	168	130	413	13	120	−49
45	Nevada	56,129	72,334	5,683	330	733	167	1,668	− 0	1,676
	Pacific:									
46	Washington	13,464	21,859	4,853	451	341	141	447	−18	569
47	Oregon	32,125	24,021	15,030	568	114	403	234	63	105
48	California	144,821	87,473	30,517	445	490	385	631	101	264
49	New England	16,897	16,188	7,862	166	263	193	151	12	123
50	Middle Atlantic	27,060	24,512	20,145	276	409	593	67	22	36
51	East North Central	18,109	13,238	4,814	225	325	256	329	46	194
52	West North Central	14,042	11,173	3,523	324	384	295	348	33	236
53	South Atlantic	10,395	7,646	1,698	236	346	229	613	46	387
54	East South Central	8,014	3,310	1,172	383	305	196	661	155	198
55	West South Central	6,982	3,449	1,908	321	235	237	385	131	110
56	Mountain	72,366	29,073	18,897	495	311	338	481	200	94
57	Pacific	90,213	59,994	21,945	451	390	355	576	87	261
	United States	21,490	15,339	7,907	295	355	372	227	53	114

NOTE.—Amounts for Maryland, Delaware, and District of Columbia are combined in the reports of the Census Bureau for all years and for all classes of stations, and for Idaho, Montana, and Rhode Island for municipal stations in 1907. Amounts for the individual State have been estimated on the assumption that total amounts are in proportion to total primary power.

TABLE 34.—COMMERCIAL CENTRAL STATIONS—FUNDED DEBT AND INCREASE BY PERIODS, BY STATES AND BY GEOGRAPHIC DIVISIONS.

		Total funded debt.			Increase in funded debt.		
		1912	1907	1902	1902 to 1912	1907 to 1912	1902 to 1907
	New England:						
1	Maine	$9,885,583	$7,569,000	$2,266,500	$7,619,083	$2,316,583	$5,302,500
2	New Hampshire	7,427,102	3,880,500	2,486,500	4,940,602	3,546,602	1,394,000
3	Vermont	3,732,384	3,042,500	533,000	3,199,384	689,884	2,509,500
4	Massachusetts	3,854,100	3,821,000	4,441,506	−587,406	33,100	−620,506
5	Rhode Island	3,912,300	1,260,000	785,000	3,127,300	2,652,300	475,000
6	Connecticut	5,273,583	5,015,375	3,084,775	2,188,808	258,208	1,930,600
	Middle Atlantic:						
7	New York	150,915,443	154,079,802	86,054,674	64,860,769	−3,164,359	68,025,128
8	New Jersey	30,778,222	25,889,250	27,669,500	3,108,722	4,888,972	−1,780,250
9	Pennsylvania	84,654,233	49,851,219	37,489,169	47,165,064	34,803,014	12,362,050
	East North Central:						
10	Ohio	17,578,400	11,401,600	5,539,833	12,038,567	6,176,800	5,861,767
11	Indiana	24,261,900	15,287,950	2,542,083	21,719,817	8,973,950	12,745,867
12	Illinois	65,798,061	41,003,800	15,100,300	50,697,761	24,794,261	25,903,500
13	Michigan	34,702,061	15,295,400	2,743,000	31,959,061	19,406,661	12,552,400
14	Wisconsin	17,900,584	7,289,500	1,746,650	16,153,934	10,611,084	5,542,850
	West North Central:						
15	Minnesota	28,771,483	19,645,750	4,157,000	24,614,483	9,125,733	15,488,750
16	Iowa	9,799,321	5,244,000	2,330,900	7,468,421	4,555,321	2,913,100
17	Missouri	23,246,160	30,910,500	6,428,300	16,817,860	−7,664,340	24,482,200
18	North Dakota	3,371,700	734,000	30,000	3,341,700	2,637,700	704,000
19	South Dakota	4,108,144	1,494,000	127,500	3,980,644	2,614,144	1,366,500
20	Nebraska	4,171,151	3,818,600	1,047,000	3,124,151	352,551	2,771,600
21	Kansas	9,717,150	2,893,500	448,500	9,268,650	6,823,650	2,445,000
	South Atlantic:						
22	Delaware	671,007	2,683,819	151,528	519,479	−2,012,812	2,532,291
23	Maryland and District of Columbia	23,084,193	31,328,281	5,354,972	17,729,221	−8,244,088	25,973,309
24	Virginia	3,405,625	600,000	152,500	3,253,125	2,805,625	447,500
25	West Virginia	5,173,957	1,054,300	22,300	5,151,657	4,119,657	1,032,000
26	North Carolina	4,616,632	369,100	328,400	4,288,232	4,247,532	40,700
27	South Carolina	10,975,957	2,209,000	935,000	10,040,957	8,766,957	1,274,000
28	Georgia	8,120,805	3,529,500	165,000	7,955,805	4,591,305	3,364,500
29	Florida	615,493	487,443	199,000	416,493	128,050	288,443
	East South Central:						
30	Kentucky	8,944,500	5,745,600	1,590,500	7,354,000	3,198,900	4,155,100
31	Tennessee	13,322,894	2,736,800	1,859,800	11,463,094	10,586,094	877,000
32	Alabama	3,769,917	3,785,100	801,300	2,968,617	−15,183	2,983,800
33	Mississippi	1,551,990	115,000	84,000	1,467,990	1,436,990	31,000
	West South Central:						
34	Arkansas	1,549,406	812,000	414,800	1,134,606	737,406	397,200
35	Louisiana	5,167,487	2,563,000	2,946,000	2,221,487	2,604,487	−383,000
36	Oklahoma	5,208,882	3,946,000	200,000	5,008,882	1,262,882	3,746,000
37	Texas	10,466,078	3,905,000	1,556,500	8,909,578	6,561,078	2,348,500
	Mountain:						
38	Montana	21,714,533	7,203,500	2,007,000	19,707,533	14,511,033	5,196,500
39	Idaho	15,901,499	958,429	258,000	15,643,499	14,943,070	700,429
40	Wyoming	821,000	378,000	136,666	684,334	443,000	241,334
41	Colorado	26,331,575	12,297,550	5,581,500	20,750,075	14,034,025	6,716,050
42	New Mexico	1,489,000	755,000	129,000	1,360,000	734,000	626,000
43	Arizona	3,452,034	908,900	355,000	3,097,034	2,543,134	553,900
44	Utah	3,526,860	1,702,250	3,954,000	−427,140	1,824,610	−2,251,750
45	Nevada	781,000	780,000	130,000	651,000	1,000	650,000
	Pacific:						
46	Washington	6,558,303	8,348,000	1,372,667	5,185,636	−1,789,697	6,975,333
47	Oregon	8,756,419	7,453,500	2,666,500	6,089,919	1,302,919	4,787,000
48	California	158,071,570	84,595,367	14,160,300	143,911,270	73,476,203	70,435,067
49	New England	34,085,052	24,588,375	13,597,281	20,487,771	9,496,677	10,991,094
50	Middle Atlantic	266,347,898	229,820,271	151,213,343	115,134,555	36,527,627	78,606,928
51	East North Central	160,241,006	90,278,250	27,671,866	132,569,140	69,962,756	62,606,384
52	West North Central	83,185,109	64,740,350	14,569,200	68,615,909	18,444,759	50,171,150
53	South Atlantic	56,663,669	42,261,443	7,308,700	49,354,969	14,402,226	34,952,743
54	East South Central	27,589,301	12,382,500	4,335,600	23,253,701	15,206,801	8,046,900
55	West South Central	22,391,853	11,226,000	5,117,300	17,274,553	11,165,853	6,108,700
56	Mountain	74,017,501	24,983,629	12,551,166	61,466,335	49,033,872	12,432,463
57	Pacific	173,386,292	100,396,867	18,199,467	155,186,825	72,989,425	82,197,400
	United States	897,907,681	600,677,685	254,563,923	643,343,758	297,229,996	346,113,762

NOTE.—Amounts for Maryland, Delaware, and District of Columbia are combined in the reports of the Census Bureau for all years and for all classes of stations, and for Idaho, Montana, and Rhode Island for municipal stations in 1907. Amounts for the individual State have been estimated on the assumption that total amounts are in proportion to total primary power.

TABLE 35.—COMMERCIAL CENTRAL STATIONS—FUNDED DEBT PER THOUSAND OF POPULATION AND PER HORSEPOWER OF PRIMARY POWER, AND PERCENTAGE INCREASE IN DEBT BY PERIODS, BY STATES AND BY GEOGRAPHIC DIVISIONS.

		Per thousand of population.			Per horsepower of primary power.			Percentage increase.		
		1912	1907	1902	1912	1907	1902	1902 to 1912	1907 to 1912	1902 to 1907
	New England:									
1	Maine	$13,126	$10,385	$3,217	$113	$136	$93	336	31	234
2	New Hampshire	17,082	9,126	5,983	90	85	89	199	91	56
3	Vermont	10,405	8,631	1,540	86	90	26	600	23	471
4	Massachusetts	1,104	1,191	1,519	12	22	38	−13	1	−14
5	Rhode Island	6,887	2,469	1,734	78	45	45	398	210	61
6	Connecticut	4,542	4,750	3,240	53	97	112	71	5	63
	Middle Atlantic:									
7	New York	15,846	17,935	11,239	132	217	271	75	−2	79
8	New Jersey	11,471	11,008	13,685	130	282	409	11	19	−6
9	Pennsylvania	10,624	6,850	5,687	141	172	224	126	70	33
	East North Central:									
10	Ohio	3,586	2,481	1,292	59	76	65	217	54	106
11	Indiana	8,848	5,771	995	157	159	62	854	59	501
12	Illinois	11,304	7,582	3,023	111	153	143	336	60	172
13	Michigan	11,979	5,665	1,096	105	100	61	1,165	127	458
14	Wisconsin	7,481	3,227	822	136	149	54	925	146	317
	West North Central:									
15	Minnesota	13,393	9,901	2,284	227	188	167	592	46	373
16	Iowa	4,408	2,355	1,045	154	142	69	320	87	125
17	Missouri	6,974	9,536	2,044	141	311	167	262	−25	381
18	North Dakota	5,312	1,456	80	241	83	10	11,139	359	2,347
19	South Dakota	6,576	2,807	290	163	133	29	3,122	175	1,072
20	Nebraska	3,419	3,300	958	103	148	96	298	9	265
21	Kansas	5,584	1,776	296	119	71	38	2,067	236	545
	South Atlantic:									
22	Delaware	3,253	13,596	804	221	417	196	343	−75	1,671
23	Maryland and District of Columbia	13,890	19,815	3,570	221	417	196	331	−26	485
24	Virginia	1,616	300	80	70	56	36	2,133	468	293
25	West Virginia	4,042	919	22	125	53	2	23,102	391	4,628
26	North Carolina	2,029	174	168	84	27	73	1,306	1,151	12
27	South Carolina	7,059	1,507	679	51	27	47	1,074	397	136
28	Georgia	3,011	1,413	72	115	79	17	4,822	130	2,039
29	Florida	767	707	346	37	76	47	209	26	145
	East South Central:									
30	Kentucky	3,852	2,553	731	120	154	81	463	56	261
31	Tennessee	5,995	1,280	605	231	125	122	616	387	47
32	Alabama	1,708	1,846	423	134	173	120	370	−0	372
33	Mississippi	838	67	52	78	16	18	1,748	1,250	37
	West South Central:									
34	Arkansas	949	541	303	78	74	56	274	91	96
35	Louisiana	3,008	1,623	2,046	243	135	238	75	102	−13
36	Oklahoma	2,814	2,795	205	124	193	49	2,504	32	1,873
37	Texas	2,561	1,068	482	88	57	48	573	158	151
	Mountain:									
38	Montana	53,524	21,281	7,398	189	105	63	982	201	259
39	Idaho	43,902	3,432	1,314	288	71	47	6,063	1,559	271
40	Wyoming	5,199	2,888	1,317	73	74	42	501	117	177
41	Colorado	30,726	16,946	9,390	201	151	146	372	114	120
42	New Mexico	4,173	2,603	578	145	166	72	1,054	97	485
43	Arizona	15,508	5,013	2,534	156	117	140	872	280	156
44	Utah	8,929	4,920	13,309	63	51	194	−11	107	−57
45	Nevada	8,609	11,033	2,565	51	112	76	501	0	500
	Pacific:									
46	Washington	5,115	8,645	2,113	171	135	62	378	−21	508
47	Oregon	11,984	12,433	5,695	212	59	153	228	17	180
48	California	61,332	39,811	8,464	188	223	107	1,016	87	497
49	New England	5,036	3,915	2,346	49	64	58	151	39	81
50	Middle Atlantic	13,198	12,613	9,294	134	211	274	76	16	52
51	East North Central	8,541	5,127	1,681	106	126	89	479	77	226
52	West North Central	6,973	5,744	1,372	161	198	115	471	28	344
53	South Central	4,501	3,612	676	102	163	91	675	34	478
54	East South Central	3,207	1,516	561	153	140	94	536	123	186
55	West South Central	2,411	1,378	730	111	94	91	338	99	119
56	Mountain	25,989	10,577	6,687	178	113	120	490	196	99
57	Pacific	37,783	27,208	6,521	189	177	106	853	73	452
	United States	9,401	6,866	3,208	129	159	151	253	49	136

NOTE.—Amounts for Maryland, Delaware, and District of Columbia are combined in the reports of the Census Bureau for all years and for all classes of stations, and for Idaho, Montana, and Rhode Island for municipal stations in 1907. Amounts for the individual State have been estimated on the assumption that total amounts are in proportion to total primary power.

TABLE 36.—MUNICIPAL CENTRAL STATIONS—FUNDED DEBT AND INCREASE BY PERIODS, BY STATES AND BY GEOGRAPHIC DIVISIONS.

		Total funded debt.			Increase in funded debt.		
		1912	1907	1902	1902 to 1912	1907 to 1912	1902 to 1907
	New England:						
1	Maine	$48,500	$54,320	$0	$48,500	−$5,820	$54,320
2	New Hampshire	115,000	200,000	5,500	109,500	−85,000	194,500
3	Vermont	541,900	388,200	257,000	284,900	153,700	131,200
4	Massachusetts	1,782,742	1,814,312	809,000	973,742	−31,570	1,005,312
5	Rhode Island	0	13,946	20,000	− 20,000	−13,946	−6,054
6	Connecticut	356,574	737,500	97,500	259,074	−380,926	640,000
	Middle Atlantic:						
7	New York	765,980	889,200	519,340	246,640	−123,220	369,860
8	New Jersey	164,663	178,520	90,000	74,663	−13,857	88,520
9	Pennsylvania	1,117,848	1,168,200	801,600	316,248	−50,352	366,600
	East North Central:						
10	Ohio	2,533,520	2,873,260	1,573,900	959,620	−339,740	1,299,360
11	Indiana	641,239	726,551	743,656	−102,417	−85,312	−17,105
12	Illinois	585,905	427,140	437,365	148,540	158,765	−10,225
13	Michigan	2,496,601	2,429,601	1,833,850	662,751	67,000	595,751
14	Wisconsin	884,056	682,500	274,500	609,556	201,556	408,000
	West North Central:						
15	Minnesota	1,091,336	1,096,050	630,050	461,286	−4,714	466,000
16	Iowa	509,789	338,830	318,960	190,829	170,959	19,870
17	Missouri	1,268,000	1,081,200	512,950	755,050	186,800	568,250
18	North Dakota	120,300	108,040	64,000	56,300	12,260	44,040
19	South Dakota	104,315	41,500	35,000	69,315	62,815	6,500
20	Nebraska	634,333	290,100	81,400	552,933	344,233	208,700
21	Kansas	1,584,728	426,000	64,500	1,520,228	1,158,728	361,500
	South Atlantic:						
22	Delaware	64,951	117,500	97,000	−32,049	−52,549	20,500
23	Maryland and District of Columbia	166,549	127,000	96,500	70,049	39,549	30,500
24	Virginia	1,030,324	240,000	100,000	930,324	790,324	140,000
25	West Virginia	28,700	31,200	48,000	−19,300	−2,500	−16,800
26	North Carolina	845,888	923,400	189,000	656,888	−77,512	734,400
27	South Carolina	398,900	305,500	99,300	299,600	93,400	206,200
28	Georgia	1,078,280	971,400	227,000	851,280	106,880	744,400
29	Florida	352,823	350,500	134,500	218,323	2,323	216,000
	East South Central:						
30	Kentucky	72,400	65,500	0	72,400	6,900	65,500
31	Tennessee	828,600	739,700	303,500	525,100	88,900	436,200
32	Alabama	467,500	508,500	97,000	370,500	−41,000	411,500
33	Mississippi	820,241	1,370,600	231,000	589,241	−550,359	1,139,600
	West South Central:						
34	Arkansas	191,929	195,100	47,500	144,429	−3,171	147,600
35	Louisiana	91,800	314,650	90,900	900	−222,850	223,750
36	Oklahoma	1,448,800	480,000	10,000	1,438,800	968,800	470,000
37	Texas	514,000	96,000	85,000	429,000	418,000	11,000
	Mountain:						
38	Montana	41,000	48,809	17,000	24,000	−7,809	31,809
39	Idaho	170,000	39,745	7,000	163,000	130,255	32,745
40	Wyoming	0	0	0	0	0	0
41	Colorado	126,925	22,700	5,000	121,925	104,225	17,700
42	New Mexico	51,700	0	0	51,700	51,700	0
43	Arizona	0	0	0	0	0	0
44	Utah	271,186	191,880	1,000	270,186	79,306	190,880
45	Nevada	15,000	0	0	15,000	15,000	0
	Pacific:						
46	Washington	3,683,200	1,597,500	359,500	3,323,700	2,085,700	1,238,000
47	Oregon	443,500	235,100	32,567	410,933	208,400	202,533
48	California	637,832	406,400	161,150	476,682	231,432	245,250
49	New England	2,844,716	3,208,278	1,189,000	1,655,716	−363,562	2,019,278
50	Middle Atlantic	2,048,491	2,235,920	1,410,940	637,551	−187,429	824,980
51	East North Central	7,141,321	7,139,052	4,863,271	2,278,050	2,269	2,275,781
52	West North Central	5,312,801	3,381,720	1,706,860	3,605,941	1,931,081	1,674,860
53	South Atlantic	3,966,415	3,066,500	991,300	2,975,115	899,915	2,075,200
54	East South Central	2,188,741	2,684,300	631,500	1,557,241	−495,559	2,052,800
55	West South Central	2,246,529	1,085,750	233,400	2,013,129	1,160,779	852,350
56	Mountain	675,811	303,134	30,000	645,811	372,677	273,134
57	Pacific	4,764,532	2,239,000	553,217	4,211,315	2,525,532	1,685,783
	United States	31,189,357	25,343,654	11,609,488	19,579,869	5,845,703	13,734,166

NOTE.—Amounts for Maryland, Delaware, and District of Columbia are combined in the reports of the Census Bureau for all years and for all classes of stations, and for Idaho, Montana, and Rhode Island for municipal stations in 1907. Amounts for the individual State have been estimated on the assumption that total amounts are in proportion to total primary power.

TABLE 37.—MUNICIPAL CENTRAL STATIONS—FUNDED DEBT PER THOUSAND OF POPULATION AND PER HORSEPOWER OF PRIMARY POWER, AND PERCENTAGE INCREASE IN DEBT BY PERIODS, BY STATES AND BY GEOGRAPHIC DIVISIONS.

		Per thousand of population.			Per horsepower of primary power.			Percentage increase.		
		1912	1907	1902	1912	1907	1902	1902 to 1912	1907 to 1912	1902 to 1907
	New England:									
1	Maine	$64	$75	$0	$19	$24	$0	.....	−11	.....
2	New Hampshire	264	470	13	92	219	37	1,991	−42	3,536
3	Vermont	1,511	1,101	742	80	78	74	111	40	51
4	Massachusetts	511	566	277	68	115	129	120	−2	124
5	Rhode Island	0	27	44	0	139	200	−100	−100	−30
6	Connecticut	307	698	102	38	161	108	266	−52	656
	Middle Atlantic:									
7	New York	80	104	68	57	70	87	47	−14	71
8	New Jersey	61	76	45	60	105	83	83	−8	98
9	Pennsylvania	140	161	122	72	86	99	39	−4	46
	East North Central:									
10	Ohio	517	625	367	67	98	88	61	−12	83
11	Indiana	234	274	291	20	36	56	−14	−12	−2
12	Illinois	101	79	88	11	14	21	34	37	−2
13	Michigan	802	900	733	54	77	92	36	3	32
14	Wisconsin	369	302	129	64	69	84	222	30	149
	West North Central:									
15	Minnesota	508	552	346	52	63	63	73	−0	74
16	Iowa	229	152	143	38	35	54	60	50	6
17	Missouri	380	334	163	75	90	74	147	17	111
18	North Dakota	190	214	171	55	76	67	88	11	69
19	South Dakota	167	78	80	40	23	51	198	151	19
20	Nebraska	520	251	74	54	69	57	679	119	256
21	Kansas	911	262	43	96	57	42	2,357	272	560
	South Atlantic:									
22	Delaware	315	595	515	40	88	119	−33	−45	21
23	Maryland and District of Columbia	100	80	64	40	52	101	73	31	32
24	Virginia	489	120	53	92	62	83	930	329	140
25	West Virginia	22	27	47	17	20	33	−40	−8	−35
26	North Carolina	372	436	96	86	136	93	348	−8	389
27	South Carolina	257	208	72	100	117	79	302	31	208
28	Georgia	400	389	99	63	97	81	375	11	328
29	Florida	440	508	234	21	44	71	162	1	161
	East South Central:									
30	Kentucky	31	29	0	10	14	0	.....	11	.....
31	Tennessee	373	346	148	73	108	80	173	12	144
32	Alabama	212	248	51	73	112	104	382	−8	424
33	Mississippi	443	757	144	78	168	80	255	−40	493
	West South Central:									
34	Arkansas	118	130	35	32	67	44	304	−2	311
35	Louisiana	53	199	63	16	73	66	1	−71	246
36	Oklahoma	783	340	10	121	219	28	14,388	202	4,700
37	Texas	126	26	26	65	33	38	505	435	13
	Mountain:									
38	Montana	101	144	63	44	139	68	141	−16	187
39	Idaho	469	142	36	155	139	0	2,329	328	468
40	Wyoming	0	0	0	0	0	0	0	0	0
41	Colorado	148	31	8	44	23	42	2,438	459	354
42	New Mexico	145	0	0	71	0	0	.....	.....	0
43	Arizona	0	0	0	0	0	0	0	0	0
44	Utah	687	555	3	64	71	8	27,019	41	19,088
45	Nevada	165	0	0	0	0	0	.....	.....	0
	Pacific:									
46	Washington	2,873	1,654	553	64	295	599	925	131	344
47	Oregon	607	392	70	95	389	104	1,262	89	622
48	California	247	191	96	67	78	76	296	57	152
49	New England	420	511	205	62	112	104	139	−11	170
50	Middle Atlantic	102	123	87	65	80	93	45	−8	58
51	East North Central	381	405	295	40	58	64	47	0	47
52	West North Central	445	300	161	63	62	62	211	57	98
53	South Atlantic	315	262	92	59	84	80	300	29	209
54	East South Central	254	329	82	61	111	67	247	−18	325
55	West South Central	242	133	33	71	88	46	863	107	365
56	Mountain	237	128	16	66	70	61	2,153	123	910
57	Pacific	1,038	607	198	66	199	183	761	113	305
	United States	327	290	146	56	79	73	169	23	118

NOTE.—Amounts for Maryland, Delaware, and District of Columbia are combined in the reports of the Census Bureau for all years and for all classes of stations, and for Idaho, Montana, and Rhode Island for municipal stations in 1907. Amounts for the individual State have been estimated on the assumption that total amounts are in proportion to total primary power.

TABLE 38.—COMMERCIAL AND MUNICIPAL CENTRAL STATIONS—INCOME, EXPENSES, AND SURPLUS, 1912, 1907, AND 1902, BY STATES AND BY GEOGRAPHIC DIVISIONS.

		Income.			Expenses.			Surplus.		
		1912	1907	1902	1912	1907	1902	1912	1907 [a]	1902
	New England:									
1	Maine	$2,118,508	$1,453,016	$692,350	$1,577,938	$866,807	$571,089	$540,570	$586,209	$121,261
2	New Hampshire	2,328,263	1,422,345	832,322	1,596,152	704,964	554,967	732,111	717,381	277,355
3	Vermont	1,228,361	841,701	485,505	824,443	521,143	333,853	403,918	320,558	151,652
4	Massachusetts	16,306,909	10,749,240	6,340,944	11,651,739	6,809,793	4,708,732	4,655,170	3,939,447	1,632,212
5	Rhode Island	2,305,176	1,724,659	1,026,407	1,654,848	990,845	803,161	650,328	733,814	223,246
6	Connecticut	5,347,552	2,469,543	1,319,549	4,109,311	1,422,717	981,831	1,238,241	1,046,826	337,718
	Middle Atlantic:									
7	New York	57,218,973	34,859,170	16,854,839	44,297,869	19,528,187	14,706,366	12,921,104	15,330,983	2,148,473
8	New Jersey	10,944,367	5,952,378	3,421,304	9,348,864	3,702,064	3,413,914	1,595,503	2,250,314	7,390
9	Pennsylvania	24,387,863	16,015,392	9,486,867	18,174,684	9,884,187	7,547,967	6,213,179	6,131,205	1,938,900
	East North Central:									
10	Ohio	11,905,111	7,643,997	4,431,038	8,722,293	5,336,848	3,286,336	3,182,818	2,307,149	1,144,702
11	Indiana	7,711,223	4,438,332	2,105,146	6,028,909	2,895,729	1,573,908	1,682,314	1,542,603	531,238
12	Illinois	30,045,297	15,465,993	6,757,015	23,557,887	8,252,762	4,961,915	6,487,410	7,213,231	1,795,100
13	Michigan	11,518,256	6,072,010	2,613,812	9,784,138	3,754,215	1,948,546	1,734,118	2,317,795	665,266
14	Wisconsin	6,274,589	2,278,637	1,288,020	5,321,258	1,641,894	957,021	953,331	636,743	330,999
	West North Central:									
15	Minnesota	6,937,841	3,478,009	1,858,789	5,580,525	2,259,919	1,459,874	1,357,316	1,218,090	398,915
16	Iowa	4,405,365	2,479,969	1,545,663	3,328,740	1,701,173	1,223,682	1,076,625	778,796	321,981
17	Missouri	9,746,600	5,805,828	2,392,149	7,484,853	3,754,747	2,042,422	2,261,747	2,051,081	349,727
18	North Dakota	873,111	533,383	197,689	714,294	368,604	157,275	158,817	164,779	40,414
19	South Dakota	1,162,522	513,682	207,868	965,763	359,086	157,971	196,759	154,596	49,897
20	Nebraska	2,802,614	1,562,669	601,777	2,239,542	968,713	431,342	563,072	593,956	170,435
21	Kansas	3,020,154	1,514,867	650,833	2,626,270	1,031,312	480,482	393,884	483,555	170,351
	South Atlantic:									
22	Delaware	262,498	213,585	94,902	203,553	135,162	82,439	58,945	78,423	12,463
23	Maryland and District of Columbia	4,968,106	3,134,143	1,617,146	3,852,502	2,257,509	1,364,411	1,115,604	876,634	252,735
24	Virginia	805,022	390,628	210,632	567,459	238,205	171,185	237,563	152,423	39,447
25	West Virginia	1,167,583	724,253	322,015	897,843	479,011	229,558	269,740	245,242	92,457
26	North Carolina	1,458,786	543,322	250,133	1,046,217	370,375	192,775	412,569	172,947	57,358
27	South Carolina	4,499,800	901,537	387,010	2,850,661	511,486	272,729	1,649,139	390,051	114,281
28	Georgia	1,968,599	1,110,510	357,565	1,655,420	612,975	254,838	313,179	497,535	102,727
29	Florida	1,361,201	654,251	324,770	1,052,696	433,230	224,637	308,505	221,021	100,133
	East South Central:									
30	Kentucky	2,754,115	1,660,700	850,086	2,244,906	1,010,338	709,234	509,209	650,362	140,852
31	Tennessee	2,448,218	1,299,983	912,482	1,753,875	736,964	587,032	694,343	563,019	325,450
32	Alabama	1,257,720	1,012,743	385,263	980,169	650,231	284,537	277,551	362,512	100,726
33	Mississippi	1,167,787	686,700	366,934	878,379	441,281	277,719	289,408	245,419	89,215
	West South Central:									
34	Arkansas	1,053,763	675,718	425,317	749,029	443,735	278,817	304,734	231,983	146,500
35	Louisiana	2,278,754	1,852,383	971,631	1,604,019	1,189,726	682,939	674,735	662,657	288,692
36	Oklahoma	2,357,950	1,106,316	281,452	1,888,706	791,687	176,539	469,244	314,629	104,913
37	Texas	6,783,972	3,792,203	2,074,558	4,924,093	2,900,888	1,477,931	1,859,879	891,315	596,627
	Mountain:									
38	Montana	3,883,410	2,469,131	1,025,971	2,411,668	1,102,955	660,476	1,471,742	1,366,176	365,495
39	Idaho	1,615,940	719,395	192,206	1,537,260	415,579	141,160	78,680	303,816	51,046
40	Wyoming	607,095	317,580	159,216	445,789	215,773	111,582	161,306	101,807	47,634
41	Colorado	4,791,340	3,410,240	1,652,505	3,997,760	2,150,135	1,537,471	793,580	1,260,105	115,034
42	New Mexico	497,895	292,682	135,307	449,516	208,614	102,201	48,379	84,068	33,106
43	Arizona	1,173,186	569,850	293,066	923,258	414,347	240,953	249,928	155,503	52,113
44	Utah	1,549,265	665,241	714,353	1,206,729	353,108	607,769	342,536	312,133	106,584
45	Nevada	618,942	372,108	44,549	428,255	198,491	39,687	190,687	173,617	4,862
	Pacific:									
46	Washington	3,087,721	3,410,542	783,651	2,270,132	1,911,691	651,495	817,589	1,498,851	132,156
47	Oregon	1,422,703	1,965,245	691,582	1,205,738	918,760	499,632	216,965	1,046,485	191,950
48	California	27,685,573	14,416,529	5,066,417	22,803,526	8,357,184	3,918,975	4,882,047	6,059,345	1,147,442
49	New England	29,634,769	18,660,504	10,697,077	21,414,431	11,316,269	7,953,633	8,220,338	7,344,235	2,743,444
50	Middle Atlantic	92,551,203	56,826,940	29,763,010	71,821,417	33,114,438	25,668,247	20,729,786	23,712,502	4,094,763
51	East North Central	67,454,476	35,898,969	17,195,031	53,414,485	21,881,448	12,727,726	14,039,991	14,017,521	4,467,305
52	West North Central	28,948,207	15,888,407	7,454,768	22,939,987	10,443,554	5,953,048	6,008,220	5,444,853	1,501,720
53	South Atlantic	16,491,595	7,672,229	3,564,173	12,126,351	5,037,953	2,792,572	4,365,244	2,634,276	771,601
54	East South Central	7,627,840	4,660,126	2,514,765	5,857,329	2,838,814	1,858,522	1,770,511	1,821,312	656,243
55	West South Central	12,474,439	7,426,620	3,752,958	9,165,847	5,326,036	2,616,226	3,308,592	2,100,584	1,136,732
56	Mountain	14,737,073	8,816,227	4,217,173	11,400,235	5,059,002	3,441,299	3,336,838	3,757,225	775,874
57	Pacific	32,195,997	19,792,316	6,541,650	26,279,396	11,187,635	5,070,102	5,916,601	8,604,681	1,471,548
	United States	302,115,599	175,642,338	85,700,605	234,419,478	106,205,149	68,081,375	67,696,121	69,437,189	17,619,230

NOTE.—"Expenses" as reported by the census are not strictly comparable for the years 1902, 1907, and 1912. Interest on funded debt amounting to $27,991,762 for all stations was omitted from expenses in 1907. Depreciation charges of $18,843,863 and sinking fund charges of $1,654,035 or $20,497,898 for all stations amounting to 8.7 per cent of the total are included in the expenses of 1912, with no corresponding entries in 1902 and 1907. Except for depreciation and sinking fund charges, the last three columns in the table gives "Surplus" for 1902 and 1912, and net income for 1907.

Amounts for Maryland, Delaware, and District of Columbia are combined in the reports of the Census Bureau. Amounts for Delaware and for Maryland and District of Columbia have been estimated on the assumption that total amounts are in proportion to total power output.

[a] See note.

TABLE 39.—COMMERCIAL AND MUNICIPAL CENTRAL STATIONS—INCOME, EXPENSES, AND SURPLUS, PER THOUSAND OF POPULATION, 1912, 1907, AND 1902, AND INCOME PER HORSEPOWER OF PRIMARY POWER, BY STATES AND BY GEOGRAPHIC DIVISIONS.

		Per thousand of population.									Per horsepower of primary power—Income.		
		Income.			Expenses.			Surplus.					
		1912	1907	1902	1912	1907	1902	1912	1907 [a]	1902	1912	1907	1902
	New England:												
1	Maine	$2,813	$1,993	$982	$2,095	$1,189	$810	$718	$804	$172	$23.6	$25.1	$27.8
2	New Hampshire	5,355	3,345	2,002	3,671	1,658	1,335	1,684	1,687	667	27.7	30.4	29.7
3	Vermont	3,424	2,387	1,402	2,298	1,478	964	1,126	909	438	24.4	21.8	20.4
4	Massachusetts	4,670	3,351	2,168	3,337	2,123	1,610	1,333	1,228	558	46.5	57.1	51.0
5	Rhode Island	4,058	3,379	2,268	2,913	1,941	1,775	1,145	1,438	493	45.7	61.6	58.3
6	Connecticut	4,605	2,338	1,386	3,539	1,347	1,031	1,066	991	355	48.8	43.9	46.5
	Middle Atlantic:												
7	New York	6,008	4,057	2,202	4,651	2,273	1,921	1,357	1,784	281	49.5	48.2	52.1
8	New Jersey	4,079	2,531	1,693	3,484	1,574	1,689	595	957	4	45.7	63.6	49.7
9	Pennsylvania	3,061	2,200	1,439	2,281	1,358	1,145	780	842	294	39.6	53.0	54.0
	East North Central:												
10	Ohio	2,428	1,663	1,034	1,779	1,161	767	649	502	267	35.3	42.7	42.7
11	Indiana	2,813	1,675	824	2,199	1,093	616	614	582	208	41.6	38.0	38.8
12	Illinois	5,162	2,860	1,352	4,047	1,526	993	1,115	1,334	359	46.5	51.7	53.2
13	Michigan	3,976	2,249	1,044	3,377	1,391	778	599	858	266	30.5	33.0	40.3
14	Wisconsin	2,622	1,009	606	2,224	727	450	398	282	156	43.2	38.7	36.1
	West North Central:												
15	Minnesota	3,230	1,753	1,021	2,598	1,139	802	632	614	219	46.9	28.6	53.3
16	Iowa	1,981	1,114	693	1,497	764	549	484	350	144	57.2	53.1	39.2
17	Missouri	2,924	1,791	760	2,245	1,158	649	679	633	111	53.5	52.1	52.8
18	North Dakota	1,375	1,058	529	1,125	731	421	250	327	108	54.0	51.9	50.3
19	South Dakota	1,861	965	472	1,546	675	359	315	290	113	41.9	39.6	41.1
20	Nebraska	2,298	1,350	551	1,836	837	395	462	513	156	53.6	52.1	48.8
21	Kansas	1,735	930	429	1,509	633	317	226	297	112	30.7	31.3	49.0
	South Atlantic:												
22	Delaware	1,273	1,082	504	987	685	438	286	397	66	56.5	27.5	59.9
23	Maryland and District of Columbia	2,989	1,982	1,078	2,318	1,428	910	671	554	168	45.8	40.4	57.1
24	Virginia	382	195	111	269	119	90	113	76	21	13.5	26.7	38.7
25	West Virginia	912	632	317	701	418	226	211	214	91	27.0	33.8	29.7
26	North Carolina	641	257	127	460	175	98	181	82	29	22.4	26.3	38.1
27	South Carolina	2,894	615	281	1,833	349	198	1,061	266	83	20.5	10.7	18.3
28	Georgia	730	444	156	614	245	111	116	199	45	22.4	20.3	28.3
29	Florida	1,695	949	564	1,311	628	390	384	321	174	40.2	45.5	53.1
	East South Central:												
30	Kentucky	1,186	738	391	967	449	326	219	289	65	33.7	39.6	39.7
31	Tennessee	1,101	608	444	789	345	286	312	263	158	35.5	45.3	48.0
32	Alabama	570	494	203	444	317	150	126	177	53	36.5	38.3	50.5
33	Mississippi	630	397	229	474	255	173	156	142	56	38.3	44.2	47.9
	West South Central:												
34	Arkansas	646	451	311	459	296	204	187	155	107	40.8	48.4	50.5
35	Louisiana	1,327	1,174	674	934	754	474	393	420	200	83.8	79.5	70.6
36	Oklahoma	1,273	784	289	1,020	561	181	253	223	108	43.7	48.9	63.9
37	Texas	1,660	1,037	643	1,205	793	458	455	244	185	53.6	52.7	59.4
	Mountain:												
38	Montana	9,573	7,294	3,782	5,945	3,258	2,435	3,628	4,036	1,347	33.5	35.9	32.2
39	Idaho	4,461	2,576	979	4,244	1,488	719	217	1,088	260	28.7	52.5	35.3
40	Wyoming	3,845	2,426	1,534	2,823	1,648	1,075	1,022	778	459	52.3	62.0	49.4
41	Colorado	5,591	4,699	2,781	4,665	2,963	2,587	926	1,736	194	35.7	41.4	43.2
42	New Mexico	1,396	1,009	606	1,260	719	458	136	290	148	45.2	64.4	76.0
43	Arizona	5,271	3,143	2,092	4,148	2,285	1,720	1,123	858	372	53.1	73.6	115.4
44	Utah	3,922	1,923	2,405	3,055	1,021	2,046	867	902	359	25.6	18.5	35.0
45	Nevada	6,823	5,264	879	4,721	2,808	783	2,102	2,456	96	40.2	53.3	25.9
	Pacific:												
46	Washington	2,409	3,532	1,206	1,771	1,980	1,003	638	1,552	203	32.2	50.7	34.3
47	Oregon	1,947	3,279	1,477	1,650	1,533	1,067	297	1,746	410	30.9	15.5	38.9
48	California	10,742	6,785	3,028	8,848	3,933	2,342	1,894	2,852	686	32.7	37.5	37.6
49	New England	4,379	2,971	1,845	3,164	1,802	1,372	1,215	1,169	473	40.3	44.9	43.3
50	Middle Atlantic	4,586	3,118	1,830	3,559	1,817	1,578	1,027	1,301	252	46.0	50.8	52.4
51	East North Central	3,595	2,039	1,044	2,847	1,243	773	748	796	271	39.9	42.8	44.6
52	West North Central	2,427	1,410	702	1,923	927	561	504	483	141	48.1	41.7	48.3
53	South Atlantic	1,310	656	329	963	431	258	347	225	71	26.5	26.0	38.4
54	East South Central	887	571	325	681	348	240	206	223	85	35.4	41.4	45.2
55	West South Central	1,343	912	535	987	654	373	356	258	162	53.4	56.3	61.0
56	Mountain	5,175	3,733	2,246	4,003	2,142	1,833	1,172	1,591	413	34.5	39.2	40.1
57	Pacific	7,016	5,364	2,344	5,727	3,032	1,817	1,289	2,332	527	32.5	34.2	37.3
	United States	3,163	2,008	1,080	2,454	1,214	858	709	794	222	40.1	42.8	46.4

NOTE.—"Expenses" as reported by the census are not strictly comparable for the years 1902, 1907 and 1912. Interest on funded debt amounting to $27,991,762 for all stations was omitted from expenses in 1907. Depreciation charges of $18,843,863 and sinking fund charges of $1,654,035 or $20,497,898 for all stations amounting to 8.7 per cent of the total are included in the expenses of 1912, with no corresponding entries in 1902 and 1907. Except for depreciation and sinking fund charges, the column headed "Surplus" gives surplus for 1902 and 1912, and net income for 1907.

Amounts for Maryland, Delaware, and District of Columbia are combined in the reports of the Census Bureau. Amounts for Delaware and for Maryland and District of Columbia have been estimated on the assumption that total amounts are in proportion to total power output.

[a] See note.

TABLE 40.—COMMERCIAL AND MUNICIPAL CENTRAL STATIONS—INCOME, EXPENSES, AND SURPLUS, PER HORSEPOWER YEAR OF POWER GENERATED, 1912, 1907, AND 1902, AND EXPENSES AND SURPLUS, PER HORSEPOWER OF PRIMARY POWER, BY STATES AND BY GEOGRAPHIC DIVISIONS.

		Per horsepower of primary power.						Per horsepower year of power generated.								
		Expenses.			Surplus.			Income.			Expenses.			Surplus.		
		1912	1907	1902	1912	1907[a]	1902	1912	1907	1902	1912	1907	1902	1912	1907[a]	1902
	New England:															
1	Maine	$17.6	$15.0	$22.9	$6.0	$10.1	$4.9	$118	$143	$205	$88	$85	$169	$30	$58	$36
2	New Hampshire	19.0	15.1	19.8	8.7	15.3	9.9	120	168	198	82	83	132	38	85	66
3	Vermont	16.4	13.5	14.0	8.0	8.3	6.4	142	184	141	95	114	97	47	70	44
4	Massachusetts	33.2	36.2	37.9	13.3	20.9	13.1	276	319	329	197	202	244	79	117	85
5	Rhode Island	32.8	35.4	45.6	12.9	26.2	12.7	242	315	286	174	181	224	68	134	62
6	Connecticut	37.5	25.3	34.6	11.3	18.6	11.9	267	239	322	205	138	240	62	101	82
	Middle Atlantic:															
7	New York	38.3	27.0	45.5	11.2	21.2	6.6	172	157	157	133	88	137	39	69	20
8	New Jersey	39.0	39.6	49.6	6.7	24.0	.1	186	276	284	159	172	283	27	104	1
9	Pennsylvania	29.5	32.7	43.0	10.1	20.3	11.0	161	251	256	120	155	204	41	96	52
	East North Central:															
10	Ohio	25.9	29.8	31.7	9.4	12.9	11.0	195	229	227	143	160	168	52	69	59
11	Indiana	32.5	24.8	29.0	9.1	13.2	9.8	212	222	182	166	145	136	46	77	46
12	Illinois	36.5	27.6	39.1	10.0	24.1	14.1	171	216	273	134	115	200	37	101	73
13	Michigan	25.9	20.4	30.0	4.6	12.6	10.3	143	191	212	121	118	158	22	73	54
14	Wisconsin	36.6	27.9	26.8	6.6	10.8	9.3	190	283	280	161	204	208	29	79	72
	West North Central															
15	Minnesota	37.7	18.6	41.9	9.2	10.0	11.4	244	259	302	196	168	237	48	91	56
16	Iowa	43.2	36.4	31.0	14.0	16.7	8.2	428	429	277	323	294	219	105	135	58
17	Missouri	41.1	33.7	45.1	12.4	18.4	7.7	273	257	272	210	166	232	63	91	40
18	North Dakota	44.2	35.9	40.0	9.8	16.0	10.3	463	423	220	379	292	175	84	131	45
19	South Dakota	34.8	27.7	31.2	7.1	11.9	9.9	307	246	319	255	172	242	52	74	77
20	Nebraska	42.8	32.3	35.0	10.8	19.8	13.8	325	319	319	260	198	229	65	121	90
21	Kansas	26.7	21.3	36.2	4.0	10.0	12.8	148	166	318	129	113	235	19	53	83
	South Atlantic:															
22	Delaware	43.8	17.4	52.0	12.7	10.1	7.9	503	295	222	390	187	193	113	108	29
23	Maryland and District of Columbia	35.5	29.1	48.2	10.3	11.3	8.9	503	278	284	390	200	240	113	78	44
24	Virginia	9.5	16.3	31.5	4.0	10.4	7.2	183	249	199	129	152	162	54	97	37
25	West Virginia	20.8	22.4	21.2	6.2	11.4	8.5	180	190	185	138	126	132	42	64	53
26	North Carolina	16.1	17.9	29.4	6.3	8.4	8.7	135	269	196	97	183	151	38	86	45
27	South Carolina	13.0	6.1	12.9	7.5	4.6	5.4	82	86	137	52	49	97	30	37	40
28	Georgia	18.8	11.2	20.2	3.6	9.1	8.1	146	122	236	123	67	168	23	55	68
29	Florida	31.1	30.1	36.7	9.1	15.4	16.4	343	363	263	265	240	182	78	123	81
	East South Central:															
30	Kentucky	27.5	24.1	33.1	6.2	15.5	6.6	238	291	199	194	177	166	44	114	33
31	Tennessee	25.4	25.7	30.9	10.1	19.6	17.1	211	243	243	151	138	156	60	105	87
32	Alabama	28.4	24.6	37.3	8.1	13.7	13.2	169	214	217	132	137	160	37	77	57
33	Mississippi	28.8	28.4	36.3	9.5	15.8	11.6	273	285	243	205	183	184	68	102	59
	West South Central:															
34	Arkansas	29.0	31.8	33.1	11.8	16.6	17.4	387	382	278	275	251	182	112	131	96
35	Louisiana	59.0	51.1	49.6	24.8	28.4	21.0	811	458	363	571	294	255	240	164	108
36	Oklahoma	35.0	35.0	40.1	8.7	13.9	23.8	315	289	480	252	207	301	63	82	179
37	Texas	38.9	40.3	42.3	14.7	12.4	17.1	297	327	277	216	250	197	81	77	80
	Mountain:															
38	Montana	20.8	16.0	20.7	12.7	19.9	11.5	67	117	183	42	52	118	25	65	65
39	Idaho	27.3	30.3	25.9	1.4	22.2	9.4	91	490	250	87	283	184	4	207	66
40	Wyoming	38.4	42.1	34.6	13.9	19.9	14.8	342	377	268	251	256	188	91	121	80
41	Colorado	29.8	26.1	40.2	5.9	15.3	3.0	189	181	179	158	114	167	31	67	12
42	New Mexico	40.8	45.9	57.4	4.4	18.5	18.6	360	414	335	325	295	253	35	119	82
43	Arizona	41.8	53.5	94.9	11.3	20.1	20.5	232	396	523	183	288	430	49	108	93
44	Utah	19.9	9.8	29.7	5.7	8.7	5.3	117	70	143	91	37	122	26	33	21
45	Nevada	27.8	28.4	23.1	12.4	24.9	2.8	90	82	193	62	44	172	28	38	21
	Pacific:															
46	Washington	23.7	28.4	28.5	8.5	22.3	5.8	282	86	260	207	48	216	75	38	44
47	Oregon	26.2	7.2	28.1	4.7	8.3	10.8	158	139	257	134	65	186	24	74	71
48	California	26.9	21.7	29.1	5.8	15.8	8.5	103	142	216	85	82	167	18	60	49
49	New England	29.1	27.2	32.2	11.2	17.7	11.1	220	257	281	159	156	209	61	101	72
50	Middle Atlantic	35.7	29.6	45.2	10.3	21.2	7.2	170	185	190	132	108	164	38	77	26
51	East North Central	31.6	26.1	33.0	8.3	16.7	11.6	174	218	236	138	133	175	36	85	61
52	West North Central	38.1	27.4	38.6	10.0	14.3	9.7	265	268	286	210	176	228	55	92	58
53	South Atlantic	19.5	17.1	30.1	7.0	8.9	8.3	158	188	226	116	123	177	42	65	49
54	East South Central	27.2	25.2	33.4	8.2	16.2	11.8	219	256	222	168	156	164	51	100	58
55	West South Central	39.2	40.4	42.5	14.2	15.9	18.5	348	349	306	256	213	213	92	99	93
56	Mountain	26.7	22.5	32.7	7.8	16.7	7.4	114	151	189	88	87	154	26	64	35
57	Pacific	26.5	19.3	28.9	6.0	14.9	8.4	112	128	225	91	72	174	21	56	51
	United States	31.1	25.9	36.9	9.0	16.9	9.5	171	195	223	133	118	177	38	77	46

NOTE.—"Expenses," as reported by the census, are not strictly comparable for the years 1902, 1907, and 1912. Interest on funded debt amounting to $27,991,762 for all stations was omitted from expenses in 1907. Depreciation charges of $18,843,863 and sinking fund charges of $1,654,035, or $20,497,898 for all stations, amounting to 8.7 per cent of the total, are included in the expenses of 1912, with no corresponding entries in 1902 and 1907. Except for depreciation and sinking fund charges, the columns headed "Surplus" gives surplus for 1902 and 1912, and net income for 1907.

Amounts for Maryland, Delaware, and District of Columbia are combined in the reports of the Census Bureau. Amounts for Delaware, and for Maryland and District of Columbia, have been estimated on the assumption that total amounts are in proportion to total power output.

[a] See note.

TABLE 41.—COMMERCIAL CENTRAL STATIONS—INCOME, EXPENSES, AND SURPLUS, 1912, 1907, AND 1902, BY STATES AND BY GEOGRAPHIC DIVISIONS.

		Income.			Expenses.			Surplus.		
		1912	1907	1902	1912	1907	1902	1912	1907 [a]	1902
	New England:									
1	Maine	$2,038,013	$1,383,022	$678,250	$1,521,129	$834,066	$563,774	$516,884	$548,956	$114,476
2	New Hampshire	2,302,631	1,400,058	829,072	1,578,563	693,051	551,934	724,068	707,007	277,138
3	Vermont	1,061,086	732,283	433,392	697,631	452,250	298,216	363,455	280,033	135,176
4	Massachusetts	15,013,562	9,999,531	6,070,643	10,620,760	6,340,137	4,445,748	4,392,802	3,659,394	1,624,895
5	Rhode Island	2,294,628	1,710,432	1,017,630	1,648,794	982,260	795,134	645,834	728,172	222,496
6	Connecticut	5,068,343	2,305,778	1,273,613	3,894,010	1,334,099	948,133	1,174,333	971,679	325,480
	Middle Atlantic:									
7	New York	56,618,990	34,410,708	16,631,802	43,839,868	19,228,083	14,519,374	12,779,122	15,182,625	2,112,428
8	New Jersey	10,816,549	5,882,309	3,378,651	9,249,612	3,664,476	3,388,132	1,566,937	2,217,833	−9,481
9	Pennsylvania	23,746,013	15,355,241	9,057,503	17,709,975	9,495,470	7,242,338	6,036,038	5,859,771	1,815,165
	East North Central:									
10	Ohio	10,297,613	6,508,718	3,729,339	7,546,896	4,594,430	2,716,493	2,750,717	1,914,288	1,012,846
11	Indiana	6,335,268	3,580,833	1,604,099	5,106,111	2,311,436	1,215,113	1,229,157	1,269,397	388,986
12	Illinois	27,639,832	13,960,932	5,578,012	21,889,335	7,185,497	4,241,089	5,750,497	6,775,435	1,336,923
13	Michigan	9,864,363	4,838,924	1,855,714	8,580,242	2,964,020	1,365,973	1,284,121	1,874,904	489,741
14	Wisconsin	5,662,586	1,899,907	1,166,533	4,817,605	1,357,715	864,353	844,981	542,192	302,180
	West North Central:									
15	Minnesota	5,859,001	2,706,790	1,448,084	4,747,351	1,707,166	1,124,191	1,111,650	999,624	323,893
16	Iowa	3,738,647	2,063,180	1,297,589	2,804,309	1,398,440	1,034,893	934,338	664,740	262,696
17	Missouri	8,941,729	5,301,950	2,121,604	6,860,194	3,411,378	1,829,745	2,081,535	1,890,572	291,859
18	North Dakota	750,378	456,641	143,205	614,024	300,081	112,891	136,354	156,560	30,314
19	South Dakota	1,015,577	439,767	179,114	852,992	301,907	135,371	162,585	137,860	43,743
20	Nebraska	2,245,368	1,344,080	540,859	1,826,531	846,697	383,419	418,837	497,383	157,440
21	Kansas	2,395,839	1,282,639	588,138	2,119,553	873,851	430,853	276,286	408,788	157,285
	South Atlantic:									
22	Delaware	178,687	171,419	67,870	139,117	101,359	57,177	39,570	70,060	10,693
23	Maryland and District of Columbia	4,874,683	3,041,998	1,583,001	3,795,184	2,183,864	1,333,590	1,079,499	858,134	249,411
24	Virginia	520,318	253,055	154,806	372,737	161,857	128,307	147,581	91,198	26,499
25	West Virginia	1,109,575	669,518	265,276	853,449	432,949	193,045	256,126	236,569	72,231
26	North Carolina	852,818	229,882	154,407	640,436	156,884	119,519	212,382	72,998	34,888
27	South Carolina	4,260,076	754,011	338,219	2,689,713	394,361	226,658	1,570,363	359,650	111,561
28	Georgia	1,210,989	657,015	225,795	1,108,986	340,430	155,470	102,003	316,585	70,325
29	Florida	632,508	274,022	191,637	480,802	214,647	145,431	151,706	59,375	46,206
	East South Central:									
30	Kentucky	2,508,254	1,480,713	787,700	2,063,403	905,091	662,360	444,851	575,622	125,340
31	Tennessee	1,919,225	1,012,443	828,189	1,489,761	567,354	519,219	429,464	445,089	308,970
32	Alabama	984,422	827,167	340,289	766,521	528,317	250,293	217,901	298,850	89,996
33	Mississippi	741,731	357,818	245,788	535,376	223,256	182,835	206,355	134,562	62,953
	West South Central:									
34	Arkansas	795,190	553,247	382,278	586,916	355,807	240,064	208,274	197,440	142,214
35	Louisiana	2,009,170	1,609,836	894,240	1,396,189	1,006,710	618,906	612,981	603,126	275,334
36	Oklahoma	1,934,526	1,019,945	265,525	1,482,274	727,276	166,166	452,252	292,669	99,359
37	Texas	6,339,750	3,584,969	1,957,568	4,622,195	2,780,970	1,393,823	1,717,555	803,999	563,745
	Mountain:									
38	Montana	3,812,303	2,439,922	1,009,763	2,354,067	1,084,484	648,688	1,458,236	1,355,438	361,075
39	Idaho	1,538,596	687,522	186,554	1,493,871	397,611	136,780	44,725	289,911	49,774
40	Wyoming	595,227	317,580	159,216	437,104	215,773	111,582	158,123	101,807	47,634
41	Colorado	4,692,333	3,358,063	1,646,979	3,926,649	2,118,644	1,532,663	765,684	1,239,419	114,316
42	New Mexico	477,277	292,682	135,307	430,846	208,614	102,201	46,431	84,068	33,106
43	Arizona	1,173,186	569,850	293,066	923,258	414,347	240,953	249,928	155,503	52,113
44	Utah	1,403,703	608,107	711,483	1,120,767	320,837	605,767	282,936	287,270	105,716
45	Nevada	616,056	372,108	44,549	426,750	198,491	39,687	189,306	173,617	4,862
	Pacific:									
46	Washington	1,638,574	2,874,880	635,443	1,348,871	1,642,823	506,027	289,703	1,232,057	129,416
47	Oregon	1,310,383	1,923,302	670,262	1,143,165	890,308	482,479	167,218	1,032,994	187,783
48	California	27,061,034	14,125,542	4,937,444	22,348,421	8,188,387	3,828,531	4,712,613	5,937,155	1,108,913
49	New England	27,778,263	17,531,104	10,302,600	19,960,887	10,635,863	7,602,939	7,817,376	6,895,241	2,699,661
50	Middle Atlantic	91,181,552	55,648,258	29,067,956	70,799,455	32,388,029	25,149,844	20,382,097	23,260,229	3,918,112
51	East North Central	59,799,662	30,789,314	13,933,697	47,940,189	18,413,098	10,403,021	11,859,473	12,376,216	3,530,676
52	West North Central	24,946,539	13,595,047	6,318,593	19,824,954	8,839,520	5,051,363	5,121,585	4,755,527	1,267,230
53	South Atlantic	13,639,654	6,050,920	2,981,011	10,080,424	3,986,351	2,359,197	3,559,230	2,064,569	621,814
54	East South Central	6,153,632	3,678,141	2,201,966	4,855,061	2,224,018	1,614,707	1,298,571	1,454,123	587,259
55	West South Central	11,078,636	6,767,997	3,499,611	8,087,574	4,870,763	2,418,959	2,991,062	1,897,234	1,080,652
56	Mountain	14,308,681	8,645,834	4,186,917	11,113,312	4,958,801	3,418,321	3,195,369	3,687,033	768,596
57	Pacific	30,009,991	18,923,724	6,243,149	24,840,457	10,721,518	4,817,037	5,169,534	8,202,206	1,426,112
	United States	278,896,610	161,630,339	78,735,500	217,502,313	97,037,961	62,835,388	61,394,297	64,592,378	15,900,112

NOTE.—"Expenses" as reported by the census are not strictly comparable for the years 1902, 1907, and 1912. Interest on funded debt amounting to $27,991,762 for all stations was omitted from expenses in 1907. Depreciation charges of $18,843,863 and sinking fund charges of $1,654,035, or $20,497,898 for all stations, amounting to 8.7 per cent of the total, are included in the expenses of 1912, with no corresponding entries in 1902 and 1907. Except for depreciation and sinking fund charges, the columns headed "Surplus" gives surplus for 1902 and 1912 and net income for 1907.

Amounts for Maryland, Delaware, and District of Columbia are combined in the reports of the Census Bureau. Amounts for Delaware, and for Maryland and District of Columbia, have been estimated on the assumption that total amounts are in proportion to total power output.

[a] See note.

TABLE 42.—COMMERCIAL CENTRAL STATIONS—INCOME, EXPENSES AND SURPLUS, PER THOUSAND OF POPULATION, 1912, 1907, AND 1902, AND INCOME, PER HORSEPOWER OF PRIMARY POWER, BY STATES AND BY GEOGRAPHIC DIVISIONS.

		Per thousand of population.									Per horsepower of primary power—Income.		
		Income.			Expenses.			Surplus.					
		1912	1907	1902	1912	1907	1902	1912	1907 [a]	1902	1912	1907	1902
	New England:												
1	Maine	$2,706	$1,897	$962	$2,020	$1,144	$800	$686	$753	$162	$23.3	$24.9	$27.9
2	New Hampshire	5,296	3,293	1,995	3,631	1,630	1,328	1,665	1,663	667	27.7	30.5	29.7
3	Vermont	2,958	2,077	1,251	1,945	1,283	861	1,013	794	390	24.3	21.8	21.2
4	Massachusetts	4,300	3,117	2,076	3,042	1,976	1,520	1,258	1,141	556	46.2	57.9	51.5
5	Rhode Island	4,039	3,351	2,249	2,902	1,924	1,757	1,137	1,427	492	45.5	61.3	58.1
6	Connecticut	4,365	2,183	1,338	3,354	1,263	996	1,011	920	342	50.5	44.6	46.3
	Middle Atlantic:												
7	New York	5,945	4,005	2,172	4,603	2,238	1,896	1,342	1,767	276	49.5	48.5	52.4
8	New Jersey	4,031	2,501	1,671	3,447	1,558	1,676	584	943	−5	45.7	64.0	50.0
9	Pennsylvania	2,981	2,110	1,374	2,223	1,305	1,099	758	805	275	39.6	53.2	54.1
	East North Central:												
10	Ohio	2,101	1,417	870	1,540	1,000	634	561	417	236	34.4	43.5	43.5
11	Indiana	2,310	1,352	628	1,862	873	476	448	479	152	41.1	37.2	39.2
12	Illinois	4,749	2,582	1,117	3,761	1,329	849	988	1,253	268	46.5	52.0	52.9
13	Michigan	3,405	1,792	742	2,962	1,098	546	443	694	196	29.9	31.7	41.2
14	Wisconsin	2,366	841	549	2,013	601	407	353	240	142	43.0	38.8	35.9
	West North Central:												
15	Minnesota	2,727	1,364	796	2,210	860	618	517	504	178	46.2	25.9	58.2
16	Iowa	1,681	926	582	1,261	628	464	420	298	118	58.7	55.9	38.6
17	Missouri	2,682	1,635	675	2,058	1,052	582	624	583	93	54.1	53.3	55.2
18	North Dakota	1,182	906	383	967	595	302	215	311	81	53.8	51.6	48.2
19	South Dakota	1,625	826	407	1,365	567	308	260	259	99	40.4	39.2	41.0
20	Nebraska	1,840	1,162	495	1,497	732	351	343	430	144	55.6	52.1	49.8
21	Kansas	1,377	787	388	1,218	536	284	159	251	104	29.3	31.4	50.1
	South Atlantic:												
22	Delaware	866	868	360	674	513	303	192	355	57	59.0	26.7	87.8
23	Maryland and District of Columbia	2,934	1,924	1,055	2,284	1,381	889	650	543	166	46.8	40.5	57.9
24	Virginia	247	127	82	177	81	68	70	46	14	10.8	23.5	36.6
25	West Virginia	867	583	261	667	377	190	200	206	71	26.8	33.7	28.3
26	North Carolina	374	108	79	281	74	61	93	34	18	15.5	16.6	34.1
27	South Carolina	2,740	514	246	1,730	269	165	1,010	245	81	19.8	9.2	17.0
28	Georgia	449	263	99	411	136	68	38	127	31	17.1	14.7	22.9
29	Florida	788	397	333	599	311	253	189	86	80	38.0	42.8	45.3
	East South Central:												
30	Kentucky	1,081	658	362	889	402	304	192	256	58	33.8	39.6	40.3
31	Tennessee	863	473	403	670	265	253	193	208	150	33.2	46.2	54.4
32	Alabama	446	404	180	347	258	132	99	146	48	35.1	37.9	50.9
33	Mississippi	400	207	153	289	129	114	111	78	39	37.1	48.7	51.5
	West South Central:												
34	Arkansas	487	369	280	359	237	176	128	132	104	40.0	50.1	52.1
35	Louisiana	1,170	1,020	621	813	638	430	357	382	191	94.4	84.7	72.2
36	Oklahoma	1,045	722	273	801	515	171	244	207	102	46.1	49.9	65.7
37	Texas	1,551	980	607	1,131	760	432	420	220	175	53.4	52.0	60.0
	Mountain:												
38	Montana	9,397	7,208	3,722	5,803	3,204	2,391	3,594	4,004	1,331	33.2	35.6	31.9
39	Idaho	4,247	2,462	951	4,124	1,424	697	123	1,038	254	27.8	51.3	34.2
40	Wyoming	3,769	2,426	1,534	2,768	1,648	1,075	1,001	778	459	52.6	62.0	49.4
41	Colorado	5,475	4,627	2,771	4,582	2,919	2,579	893	1,708	192	35.8	41.2	43.2
42	New Mexico	1,338	1,009	606	1,208	719	458	130	290	148	46.4	64.4	76.0
43	Arizona	5,271	3,143	2,092	4,148	2,285	1,720	1,123	858	372	53.1	73.6	115.4
44	Utah	3,553	1,757	2,395	2,837	927	2,039	716	830	356	24.9	18.3	35.0
45	Nevada	6,791	5,264	879	4,704	2,808	783	2,087	2,456	96	40.0	53.3	25.9
	Pacific:												
46	Washington	1,278	2,977	978	1,052	1,701	779	226	1,276	199	42.9	46.5	28.5
47	Oregon	1,794	3,208	1,431	1,565	1,485	1,030	229	1,723	401	31.7	15.3	38.3
48	California	10,499	6,647	2,951	8,671	3,853	2,288	1,828	2,794	663	32.2	37.2	37.3
49	New England	4,104	2,791	1,778	2,949	1,693	1,312	1,155	1,098	466	40.3	45.3	43.8
50	Middle Atlantic	4,518	3,054	1,787	3,508	1,777	1,546	1,010	1,277	241	46.0	51.0	52.6
51	East North Central	3,187	1,749	846	2,555	1,046	632	632	703	214	39.6	43.0	45.0
52	West North Central	2,091	1,206	595	1,662	784	476	429	422	119	48.2	41.5	49.8
53	South Atlantic	1,084	517	276	801	341	218	283	176	58	24.6	23.4	37.2
54	East South Central	715	450	285	564	272	209	151	178	76	34.2	41.5	47.6
55	West South Central	1,193	831	499	871	598	345	322	233	154	54.9	56.7	62.1
56	Mountain	5,024	3,660	2,230	3,902	2,099	1,821	1,122	1,561	409	34.4	39.1	39.9
57	Pacific	6,539	5,129	2,237	5,413	2,906	1,726	1,126	2,223	511	32.7	33.4	36.2
	United States	2,920	1,847	992	2,277	1,109	792	643	738	200	40.0	42.8	46.7

NOTE.—"Expenses" as reported by the Census are not strictly comparable for the years 1902, 1907, and 1912. Interest on funded debt amounting to $27,991,762 for all stations was omitted from expenses in 1907. Depreciation charges of $18,843,863 and sinking fund charges of $1,654,035 or $20,497,898 for all stations amounting to 8.7 per cent of the total, are included in the expenses of 1912, with no corresponding entries in 1902 and 1907. Except for depreciation and sinking fund charges, the columns headed "Surplus" gives surplus for 1902 and 1912 and net income for 1907.

Amounts for Maryland, Delaware, and District of Columbia are combined in the reports of the Census Bureau. Amounts for Delaware, and for Maryland and District of Columbia have been estimated on the assumption that total amounts are in proportion to total power output.

[a] See note.

TABLE 43.—COMMERCIAL CENTRAL STATIONS—INCOME, EXPENSES AND SURPLUS PER HORSEPOWER YEAR OF POWER GENERATED, 1912, 1907, AND 1902, AND EXPENSES AND SURPLUS, PER HORSEPOWER OF PRIMARY POWER, BY STATES AND BY GEOGRAPHIC DIVISIONS.

		Per horsepower of primary power.						Per horsepower year of power generated.								
		Expenses.			Surplus.			Income.			Expenses.			Surplus.		
		1912	1907	1902	1912	1907[a]	1902	1912	1907	1902	1912	1907	1902	1912	1907[a]	1902
	New England:															
1	Maine	$17.4	$15.0	$23.2	$5.9	$9.9	$4.7	$115	$141	$207	$86	$85	$172	$29	$56	$35
2	New Hampshire	19.0	15.1	19.8	8.7	15.4	9.9	119	168	200	82	83	133	37	85	67
3	Vermont	16.0	13.5	14.6	8.3	8.3	6.6	131	183	152	86	113	105	45	70	47
4	Massachusetts	32.7	36.7	37.7	13.5	21.2	13.8	273	316	325	193	200	238	80	116	87
5	Rhode Island	32.7	35.2	45.4	12.8	26.1	12.7	242	314	284	174	180	222	68	134	62
6	Connecticut	38.8	25.8	34.5	11.7	18.8	11.8	263	235	321	202	136	239	61	99	82
	Middle Atlantic:															
7	New York	38.3	27.1	45.7	11.2	21.4	6.7	171	156	156	132	87	136	39	69	20
8	New Jersey	39.1	39.9	50.1	6.6	24.1	0.1	185	276	283	158	172	284	27	104	−1
9	Pennsylvania	29.5	32.9	43.3	10.1	20.3	10.8	158	249	257	118	154	205	40	95	52
	East North Central:															
10	Ohio	25.2	30.7	31.7	9.2	12.8	11.8	187	225	240	137	159	175	50	66	65
11	Indiana	33.1	24.0	29.7	8.0	13.2	9.5	201	220	184	162	142	139	39	78	45
12	Illinois	36.8	26.8	40.2	9.7	25.2	12.7	172	207	272	136	107	207	36	100	65
13	Michigan	26.0	19.4	30.3	3.9	12.3	10.9	139	176	209	121	108	154	18	68	55
14	Wisconsin	36.6	27.7	26.6	6.4	11.1	9.3	179	260	277	152	186	205	27	74	72
	West North Central:															
15	Minnesota	37.4	16.3	45.2	8.8	9.6	13.0	223	234	324	181	148	252	42	86	72
16	Iowa	44.0	37.9	30.8	14.7	18.0	7.8	427	443	280	320	300	223	107	143	57
17	Missouri	41.5	34.3	47.6	12.6	19.0	7.6	266	255	278	204	164	240	62	91	38
18	North Dakota	44.0	33.9	38.0	9.8	17.7	10.2	455	414	206	372	272	162	83	142	44
19	South Dakota	33.9	26.9	31.0	6.5	12.3	10.0	281	228	307	236	156	232	45	72	75
20	Nebraska	45.2	32.8	35.3	10.4	19.3	14.5	306	310	327	249	195	232	57	115	95
21	Kansas	25.9	21.4	36.7	3.4	10.0	13.4	129	157	337	114	107	247	15	50	90
	South Atlantic:															
22	Delaware	45.9	15.8	74.0	13.1	10.9	13.8	518	316	285	403	187	240	115	129	45
23	Maryland and District of Columbia	36.4	29.1	48.8	10.4	11.4	9.1	518	278	285	403	200	240	115	78	45
24	Virginia	7.7	15.0	30.3	3.1	8.5	6.3	165	211	214	118	135	177	47	76	37
25	West Virginia	20.6	21.8	20.6	6.2	11.9	7.7	177	189	178	136	122	130	41	67	48
26	North Carolina	11.6	11.3	26.4	3.9	5.3	7.7	87	185	183	65	126	142	22	59	41
27	South Carolina	12.5	4.8	11.4	7.3	4.4	5.6	79	74	133	50	39	89	29	35	44
28	Georgia	15.7	7.6	15.8	1.4	7.1	7.1	105	83	230	96	43	158	9	40	72
29	Florida	28.9	33.5	34.4	9.1	9.3	10.9	333	410	244	253	321	185	80	89	59
	East South Central:															
30	Kentucky	27.8	24.2	33.9	6.0	15.4	6.4	248	291	209	204	178	176	44	113	33
31	Tennessee	25.8	25.9	34.1	7.4	20.3	20.3	191	241	254	148	135	159	43	106	95
32	Alabama	27.3	24.2	37.4	7.8	13.7	13.5	148	193	210	115	123	154	33	70	56
33	Mississippi	26.8	30.4	38.3	10.3	18.3	13.2	230	273	246	166	170	183	64	103	63
	West South Central:															
34	Arkansas	29.5	32.2	32.7	10.5	17.9	19.4	376	390	282	278	251	177	98	139	105
35	Louisiana	65.6	53.0	50.0	28.8	31.7	22.2	947	468	392	658	293	271	289	175	121
36	Oklahoma	35.3	35.6	41.1	10.8	14.3	24.6	296	289	480	227	206	300	69	83	180
37	Texas	38.9	40.3	42.7	14.5	11.7	17.3	294	329	277	214	255	197	80	74	80
	Mountain:															
38	Montana	20.5	15.8	20.5	12.7	19.8	11.4	66	116	184	41	52	118	25	64	66
39	Idaho	27.0	29.7	25.1	0.8	21.6	9.1	88	497	255	85	287	187	3	210	68
40	Wyoming	38.6	42.1	34.6	14.0	19.9	14.8	339	377	268	249	256	188	90	121	80
41	Colorado	30.0	26.0	40.2	5.8	15.2	3.0	186	179	178	156	113	166	30	66	12
42	New Mexico	41.9	45.9	57.4	4.5	18.5	18.6	366	414	334	330	295	252	36	119	82
43	Arizona	41.8	53.5	94.9	11.3	20.1	20.5	232	396	523	183	288	430	49	108	93
44	Utah	19.9	9.7	29.8	5.0	8.6	5.2	110	68	143	88	36	122	22	32	21
45	Nevada	27.7	28.4	23.1	12.3	24.9	2.8	89	82	193	62	44	172	27	38	21
	Pacific:															
46	Washington	35.3	26.6	22.7	7.6	19.9	5.8	288	75	221	237	43	176	51	32	45
47	Oregon	27.7	7.1	27.6	4.0	8.2	10.7	155	136	257	135	63	185	20	73	72
48	California	26.6	21.6	28.9	5.6	15.6	8.4	102	140	214	84	81	166	18	59	48
49	New England	29.0	27.5	32.3	11.3	17.8	11.5	216	254	282	155	154	208	61	100	74
50	Middle Atlantic	35.7	29.7	45.5	10.3	21.3	7.1	169	184	189	131	107	164	38	77	25
51	East North Central	31.7	25.7	33.6	7.9	17.3	11.4	171	209	241	137	125	180	34	84	61
52	West North Central	38.3	27.0	39.8	9.9	14.5	10.0	250	258	295	199	168	236	51	90	59
53	South Atlantic	18.2	15.4	29.4	6.4	8.0	7.8	141	167	226	104	110	179	37	57	47
54	East South Central	27.0	25.1	34.9	7.2	16.4	12.7	205	247	229	162	149	168	43	98	61
55	West South Central	40.1	40.8	42.9	14.8	15.9	19.2	342	350	311	250	252	215	92	98	96
56	Mountain	26.7	22.4	32.6	7.7	16.7	7.3	112	150	189	87	86	154	25	64	35
57	Pacific	27.1	18.9	27.9	5.6	14.5	8.3	107	123	219	89	70	169	18	53	50
	United States	31.2	25.7	37.3	8.8	17.1	9.4	165	190	222	129	114	177	36	76	54

NOTE.—"Expenses" as reported by the Census are not strictly comparable for the years 1902, 1907, and 1912. Interest on funded debt amounting to $27,991,762 for all stations was omitted from expenses in 1907. Depreciation charges of $18,843,863, and sinking fund charges of $1,654,035, or $20,497,898 for all stations amounting to 8.7 per cent of the total, are included in the expenses of 1912, with no corresponding entries in 1902 and 1907. Except for depreciation and sinking fund charges, the columns headed "Surplus" gives surplus for 1902 and 1912 and net income for 1907.

Amounts for Maryland, Delaware, and District of Columbia are combined in the reports of the Census Bureau. Amounts for Delaware and for Maryland and District of Columbia have been estimated on the assumption that total amounts are in proportion to total power output.

[a] See note.

TABLE 44.—MUNICIPAL CENTRAL STATIONS—INCOME, EXPENSES, AND SURPLUS, 1912, 1907, AND 1902, BY STATES AND BY GEOGRAPHIC DIVISIONS.

		Income.			Expenses.			Surplus.		
		1912	1907	1902	1912	1907	1902	1912	1907 [a]	1902
	New England:									
1	Maine	$80,495	$69,994	$14,100	$56,809	$32,741	$7,315	$23,686	$37,253	$6,785
2	New Hampshire	25,632	22,287	3,250	17,589	11,913	3,033	8,043	10,374	217
3	Vermont	167,275	109,418	52,113	126,812	68,893	35,637	40,463	40,525	16,476
4	Massachusetts	1,293,347	749,709	270,301	1,030,979	469,656	262,984	262,368	280,053	7,317
5	Rhode Island	10,548	10,926	8,777	6,054	6,532	8,027	4,494	4,394	750
6	Connecticut	279,209	163,765	45,936	215,301	88,618	33,698	63,908	75,147	12,238
	Middle Atlantic:									
7	New York	599,983	448,462	223,037	458,001	300,104	186,992	141,982	148,358	36,045
8	New Jersey	127,818	70,069	42,653	99,252	37,588	25,782	28,566	32,481	16,871
9	Pennsylvania	641,850	660,151	429,364	464,709	388,717	305,629	177,141	271,434	123,735
	East North Central:									
10	Ohio	1,607,498	1,135,279	701,699	1,175,397	742,418	569,843	432,101	392,861	131,856
11	Indiana	1,375,955	857,499	501,047	922,798	584,293	358,795	453,157	273,206	142,252
12	Illinois	2,405,465	1,505,061	1,179,003	1,668,552	1,067,265	720,826	736,913	437,796	458,177
13	Michigan	1,653,893	1,233,086	758,098	1,203,896	790,195	582,573	449,997	442,891	175,525
14	Wisconsin	612,003	378,730	121,487	503,653	284,179	92,668	108,350	94,551	28,819
	West North Central:									
15	Minnesota	1,078,840	771,219	410,705	833,174	552,753	335,683	245,666	218,466	75,022
16	Iowa	666,718	416,789	248,074	524,431	302,733	188,789	142,287	114,056	59,285
17	Missouri	804,871	503,878	270,545	624,659	343,369	212,677	180,212	160,509	57,868
18	North Dakota	122,733	76,742	54,484	100,270	68,523	44,384	22,463	8,219	10,100
19	South Dakota	146,945	73,915	28,754	112,771	57,179	22,600	34,174	16,736	6,154
20	Nebraska	557,246	218,589	60,918	413,011	122,016	47,923	144,235	96,573	12,995
21	Kansas	624,315	232,228	62,695	506,717	157,461	49,629	117,598	74,767	13,066
	South Atlantic:									
22	Delaware	48,694	42,166	27,032	33,451	33,803	25,262	15,243	8,363	1,770
23	Maryland and District of Columbia	128,540	92,145	34,145	88,303	73,645	30,821	40,237	18,500	3,324
24	Virginia	284,704	137,573	55,826	194,722	76,348	42,878	89,982	61,225	12,948
25	West Virginia	58,008	54,735	56,739	44,394	46,062	36,513	13,614	8,673	20,226
26	North Carolina	605,968	313,440	95,726	405,781	213,491	73,256	200,187	99,949	22,470
27	South Carolina	239,724	147,526	48,791	160,948	117,125	46,071	78,776	30,401	2,720
28	Georgia	757,610	453,495	131,770	546,434	272,545	99,368	211,176	180,950	32,402
29	Florida	728,693	380,229	133,133	571,894	218,583	79,206	156,799	161,646	53,927
	East South Central:									
30	Kentucky	245,861	179,987	62,386	181,503	105,247	46,874	64,358	74,740	15,512
31	Tennessee	528,993	287,540	84,293	264,114	169,610	67,813	264,879	117,930	16,480
32	Alabama	273,298	185,576	44,974	213,648	121,914	34,244	59,650	63,662	10,730
33	Mississippi	426,056	328,882	121,146	343,003	218,025	94,884	83,053	110,857	26,262
	West South Central:									
34	Arkansas	258,573	122,471	43,039	162,113	87,928	38,753	96,460	34,543	4,286
35	Louisiana	269,584	242,547	77,391	207,830	183,016	64,033	61,754	59,531	13,358
36	Oklahoma	423,424	86,371	15,927	406,432	64,411	10,373	16,992	21,960	5,554
37	Texas	444,222	207,234	116,990	301,898	119,918	84,108	142,324	87,316	32,882
	Mountain:									
38	Montana	71,107	23,437	16,208	57,601	14,012	11,788	13,506	9,425	4,420
39	Idaho	77,344	40,946	5,652	43,389	24,480	4,380	33,955	16,466	1,272
40	Wyoming	11,868	0	0	8,685	0	0	3,183	0	0
41	Colorado	99,007	52,177	5,526	71,111	31,491	4,808	27,896	20,686	718
42	New Mexico	20,618	0	0	18,670	0	0	1,948	0	0
43	Arizona	0	0	0	0	0	0	0	0	0
44	Utah	145,562	57,134	2,870	85,962	32,271	2,002	59,600	24,863	868
45	Nevada	2,886	0	0	1,505	0	0	1,381	0	0
	Pacific:									
46	Washington	1,449,147	535,662	148,208	921,261	268,868	145,468	527,886	266,794	2,740
47	Oregon	112,320	41,943	21,320	62,573	28,452	17,153	49,747	13,491	4,167
48	California	624,539	290,987	128,973	455,105	168,797	90,444	169,434	122,190	38,529
49	New England	1,856,506	1,126,099	394,477	1,453,544	678,353	350,694	402,962	447,746	43,783
50	Middle Atlantic	1,369,651	1,178,682	695,054	1,021,962	726,409	518,403	347,689	452,273	176,651
51	East North Central	7,654,814	5,109,655	3,261,334	5,474,296	3,468,350	2,324,705	2,180,518	1,641,305	936,629
52	West North Central	4,001,668	2,293,360	1,136,175	3,115,033	1,604,034	901,685	886,635	689,326	234,490
53	South Atlantic	2,851,941	1,621,309	583,162	2,045,927	1,051,602	433,375	806,014	569,707	149,787
54	East South Central	1,474,208	981,985	312,799	1,002,268	614,796	243,815	471,940	367,189	68,984
55	West South Central	1,395,803	658,623	253,347	1,078,273	455,273	197,267	317,530	203,350	56,080
56	Mountain	428,392	173,694	30,256	288,923	102,254	22,978	141,469	71,440	7,278
57	Pacific	2,186,006	868,592	298,501	1,438,939	466,117	253,065	747,067	402,475	45,436
	United States	23,218,989	14,011,999	6,965,105	16,917,165	9,167,188	5,245,987	6,301,824	4,844,811	1,719,118

NOTE.—"Expenses" as reported by the census are not strictly comparable for the years 1902, 1907, and 1912. Interest on funded debt amounting to $27,991,762 for all stations was omitted from expenses in 1907. Depreciation charges of $18,843,863 and sinking fund charges of $1,654,035, or $20,497,898 for all stations, amounting to 8.7 per cent of the total, are included in the expenses of 1912, with no corresponding entries in 1902 and 1907. Except for depreciation and sinking fund charges, the columns headed "Surplus" gives surplus for 1902 and 1912 and net income for 1907.

Amounts for Maryland, Delaware, and District of Columbia are combined in the reports of the Census Bureau for all years, and in Idaho, Montana, and Rhode Island for 1907. Amounts for the individual State have been estimated on the assumption that total amounts are in proportion to total power output.

[a] See note.

TABLE 45.—MUNICIPAL CENTRAL STATIONS—INCOME, EXPENSES, AND SURPLUS PER THOUSAND OF POPULATION, 1912, 1907, AND 1902, AND INCOME PER HORSEPOWER OF PRIMARY POWER, BY STATES AND BY GEOGRAPHIC DIVISIONS.

		Per thousand of population.									Per horsepower of primary power—Income.		
		Income.			Expenses.			Surplus.					
		1912	1907	1902	1912	1907	1902	1912	1907[a]	1902	1912	1907	1902
	New England:												
1	Maine	$106	$96	$20	$75	$45	$10	$31	$51	$10	$32.3	$31.2	$24.5
2	New Hampshire	58	52	8	40	28	7	18	24	1	20.6	24.3	21.6
3	Vermont	467	310	151	354	195	103	113	115	48	24.7	22.1	15.1
4	Massachusetts	370	233	93	295	146	90	75	87	3	49.6	47.4	43.2
5	Rhode Island	19	22	20	11	13	18	8	9	2	105.4	109.2	87.8
6	Connecticut	240	154	48	185	83	35	55	71	13	30.0	35.7	51.0
	Middle Atlantic:												
7	New York	63	52	29	48	35	24	15	17	5	44.4	35.2	37.2
8	New Jersey	48	30	21	37	16	13	11	14	8	46.5	41.2	39.3
9	Pennsylvania	80	90	65	58	53	46	22	37	19	41.6	48.7	52.8
	East North Central:												
10	Ohio	328	247	164	240	162	133	88	85	31	42.5	38.6	39.0
11	Indiana	502	324	196	337	221	140	165	103	56	44.0	42.0	37.8
12	Illinois	414	278	236	287	197	144	127	81	92	47.1	48.8	55.6
13	Michigan	571	457	303	416	293	233	155	164	70	35.5	39.2	38.1
14	Wisconsin	255	169	58	210	127	44	45	42	14	44.1	38.4	37.4
	West North Central:												
15	Minnesota	502	389	225	388	279	184	114	110	41	50.9	44.5	41.2
16	Iowa	300	187	112	236	136	85	64	51	27	49.8	42.5	42.2
17	Missouri	241	156	86	187	106	68	54	50	18	47.8	41.8	39.3
18	North Dakota	193	152	146	158	136	119	35	16	27	55.8	53.9	56.7
19	South Dakota	236	138	65	181	107	51	55	31	14	56.2	41.8	41.9
20	Nebraska	457	188	56	339	105	44	118	83	12	47.4	51.6	42.6
21	Kansas	359	143	42	291	97	33	68	46	9	37.7	30.8	40.8
	South Atlantic:												
22	Delaware	236	213	143	162	171	134	74	42	9	30.0	31.4	33.3
23	Maryland and District of Columbia	77	59	23	53	47	21	24	12	2	31.0	37.5	35.6
24	Virginia	135	69	30	92	38	23	43	31	7	25.4	35.7	46.1
25	West Virginia	46	48	56	35	40	36	11	8	20	34.2	34.7	39.1
26	North Carolina	266	148	48	178	101	37	88	47	11	61.5	46.3	46.9
27	South Carolina	155	101	35	104	80	33	51	21	2	60.2	56.7	38.8
28	Georgia	281	181	57	203	109	43	78	72	14	44.2	45.6	47.2
29	Florida	907	551	232	712	317	138	195	234	94	42.3	47.7	70.6
	East South Central:												
30	Kentucky	106	80	29	78	47	22	28	33	7	32.8	39.3	33.2
31	Tennessee	238	134	41	119	79	33	119	55	8	46.6	42.2	22.4
32	Alabama	124	90	24	97	59	18	27	31	6	42.6	40.9	48.1
33	Mississippi	230	190	75	185	126	59	45	64	16	40.5	40.3	42.0
	West South Central:												
34	Arkansas	158	82	31	99	59	28	59	23	3	43.2	42.1	39.5
35	Louisiana	157	154	53	121	116	44	36	38	9	45.9	56.6	56.1
36	Oklahoma	229	62	17	220	46	11	9	16	6	35.3	39.3	44.0
37	Texas	109	57	36	74	33	26	35	24	10	56.0	70.5	52.1
	Mountain:												
38	Montana	175	69	60	142	41	43	33	28	17	76.9	66.9	64.9
39	Idaho	214	149	28	120	88	22	94	59	6	70.3	143.7	----------
40	Wyoming	75	0	0	55	0	0	20	0	0	43.0	----------	----------
41	Colorado	116	72	9	83	43	8	33	29	1	34.0	53.8	46.1
42	New Mexico	57	0	0	52	0	0	5	0	0	28.3	----------	----------
43	Arizona	0	0	0	0	0	0	0	0	0	----------	----------	----------
44	Utah	369	165	10	218	93	7	151	72	3	34.2	21.0	22.9
45	Nevada	32	0	0	17	0	0	15	0	0	----------	----------	----------
	Pacific:												
46	Washington	1,131	554	228	719	278	224	412	276	4	25.2	99.0	247.0
47	Oregon	154	70	46	86	47	37	68	23	9	24.0	69.4	68.1
48	California	243	137	77	177	79	54	66	58	23	65.3	55.7	61.2
49	New England	275	179	69	215	108	61	60	71	8	40.4	39.4	34.5
50	Middle Atlantic	68	65	43	51	40	32	17	25	11	43.2	42.2	45.7
51	East North Central	408	289	198	292	196	141	116	93	57	42.4	41.8	43.2
52	West North Central	335	203	107	261	142	85	74	61	22	47.3	42.3	41.6
53	South Atlantic	227	139	54	163	90	40	64	49	14	42.7	44.4	47.0
54	East South Central	172	120	41	117	75	32	55	45	9	41.2	40.7	33.0
55	West South Central	150	81	36	116	56	28	34	25	8	43.9	53.4	49.9
56	Mountain	151	73	16	101	43	12	50	30	4	42.0	40.1	61.1
57	Pacific	477	235	107	314	126	91	163	109	16	30.4	77.3	98.7
	United States	243	160	88	177	105	66	66	55	22	41.6	43.6	43.5

NOTE.—"Expenses" as reported by the census are not strictly comparable for the years 1902, 1907, and 1912. Interest on funded debt amounting to $27,991,762 for all stations was omitted from expenses in 1907. Depreciation charges of $18,843,863 and sinking fund charges of $1,654,035 or $20,497,898 for all stations amounting to 8.7 per cent of the total, are included in the expenses of 1912, with no corresponding entries in 1902 and 1907. Except for depreciation and sinking fund charges, the columns headed "Surplus" gives surplus for 1902 and 1912 and net income for 1907.

Amounts for Maryland, Delaware, and District of Columbia are combined in the reports of the Census Bureau for all years, and in Idaho, Montana, and Rhode Island for 1907. Amounts for the individual State have been estimated on the assumption that total amounts are in proportion to total power output.

[a] See note.

TABLE 46.—MUNICIPAL CENTRAL STATIONS—INCOME, EXPENSES AND SURPLUS, PER HORSEPOWER YEAR OF POWER GENERATED, 1912, 1907, AND 1902, AND EXPENSES AND SURPLUS PER HORSEPOWER OF PRIMARY POWER, BY STATES AND BY GEOGRAPHIC DIVISIONS.

		Per horsepower of primary power.						Per horsepower year of power generated.								
		Expenses.			Surplus.			Income.			Expenses.			Surplus.		
		1912	1907	1902	1912	1907[a]	1902	1912	1907	1902	1912	1907	1902	1912	1907[a]	1902
	New England:															
1	Maine	$22.8	$14.6	$12.7	$9.5	$16.6	$11.8	$255	$235	$162	$180	$110	$84	$75	$125	$78
2	New Hampshire	14.1	13.0	20.2	6.5	11.3	1.4	361	181	65	248	97	61	113	81	4
3	Vermont	18.7	13.9	10.3	6.0	8.2	4.8	278	189	90	211	119	62	67	70	28
4	Massachusetts	39.5	29.7	42.0	10.1	17.7	1.2	305	375	420	243	235	409	62	140	11
5	Rhode Island	60.5	65.3	80.3	44.9	43.9	7.5	586	489	488	336	292	446	250	197	42
6	Connecticut	23.1	19.3	37.4	6.9	16.4	13.6	365	333	356	281	180	261	84	153	95
	Middle Atlantic:															
7	New York	33.9	23.6	31.2	10.5	11.6	6.0	261	268	216	199	179	181	62	89	35
8	New Jersey	36.1	22.1	23.8	10.4	19.1	15.5	376	391	318	292	210	192	84	181	126
9	Pennsylvania	30.1	28.7	37.6	11.5	20.0	15.2	344	310	254	249	183	181	95	127	73
	East North Central:															
10	Ohio	31.1	25.2	31.7	11.4	13.4	7.3	267	253	177	195	165	144	72	88	33
11	Indiana	29.5	28.6	27.1	14.5	13.4	10.7	288	233	176	193	159	126	95	74	50
12	Illinois	32.7	34.6	34.0	14.4	14.2	21.6	151	351	278	105	219	170	46	102	108
13	Michigan	25.8	25.1	29.3	9.7	14.1	8.8	168	273	216	122	175	166	46	98	50
14	Wisconsin	36.3	28.8	28.5	7.8	9.6	8.9	457	498	322	376	374	246	81	124	76
	West North Central:															
15	Minnesota	39.3	31.9	33.7	11.6	12.6	7.5	467	414	241	361	297	197	106	117	44
16	Iowa	39.2	30.9	32.1	10.6	11.6	10.1	436	370	257	343	269	196	93	101	61
17	Missouri	37.1	28.5	30.9	10.7	13.3	8.4	390	286	229	303	195	180	87	91	49
18	North Dakota	45.6	48.1	46.2	10.2	5.8	10.5	523	492	271	427	439	221	96	53	50
19	South Dakota	43.1	32.3	32.9	13.1	9.5	9.0	821	468	417	630	362	328	191	106	89
20	Nebraska	35.1	28.8	33.5	12.3	22.8	9.1	426	387	264	316	216	208	110	171	56
21	Kansas	30.6	20.9	32.3	7.1	9.9	8.5	339	227	209	275	154	165	64	73	44
	South Atlantic:															
22	Delaware	20.6	25.2	31.1	9.4	6.2	2.2	275	234	142	189	188	133	86	46	9
23	Maryland and District of Columbia	21.3	30.0	32.1	9.7	7.5	3.5	275	260	244	189	208	220	86	52	24
24	Virginia	17.4	19.8	35.4	8.0	15.9	10.7	228	373	169	156	207	130	72	166	39
25	West Virginia	26.2	29.2	25.2	8.0	5.5	13.9	262	208	226	201	175	145	61	33	81
26	North Carolina	41.2	31.5	35.9	20.3	14.8	11.0	594	402	218	398	274	167	196	128	51
27	South Carolina	40.4	45.0	36.6	19.8	11.7	2.2	510	471	172	342	374	162	168	97	10
28	Georgia	31.9	27.4	35.6	12.3	18.2	11.6	402	363	247	290	218	186	112	145	61
29	Florida	33.2	27.4	42.0	9.1	20.3	28.6	353	335	296	277	193	176	76	142	120
	East South Central:															
30	Kentucky	24.2	23.0	24.9	8.6	16.3	8.3	165	285	121	122	167	91	43	118	30
31	Tennessee	23.3	24.9	18.0	23.3	17.3	4.4	353	255	174	176	150	140	177	105	34
32	Alabama	33.3	26.9	36.6	9.3	14.0	11.5	338	412	280	264	271	213	74	141	67
33	Mississippi	32.6	26.7	32.9	7.9	13.6	9.1	402	300	239	324	199	187	78	101	52
	West South Central:															
34	Arkansas	27.1	30.2	35.6	16.1	11.9	3.9	423	351	250	265	252	225	158	99	25
35	Louisiana	35.4	42.7	46.4	10.5	13.9	9.7	393	396	195	303	299	161	90	97	34
36	Oklahoma	33.9	29.3	28.7	1.4	10.0	15.3	443	292	482	425	218	314	18	74	168
37	Texas	38.1	40.8	37.5	17.9	29.7	14.6	353	294	285	240	170	205	113	124	80
	Mountain:															
38	Montana	62.3	40.0	47.2	14.6	26.9	17.7	227	489	147	184	292	107	43	197	40
39	Idaho	39.4	85.9	.....	30.9	57.8	.....	545	489	157	306	292	122	239	197	35
40	Wyoming	31.5	.....	.....	11.5	.....	.....	659	.....	.....	482	.....	.....	177	.....	.....
41	Colorado	24.4	32.5	40.1	9.6	21.3	6.0	480	669	425	345	404	370	135	265	55
42	New Mexico	25.6	.....	.....	2.7	.....	.....	261	.....	.....	236	.....	.....	25	.....	.....
43	Arizona	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
44	Utah	20.2	11.9	16.0	14.0	9.1	6.9	246	97	205	145	55	143	101	42	62
45	Nevada	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Pacific:															
46	Washington	16.0	49.7	242.4	9.2	49.3	4.6	275	492	1,029	175	247	1,010	100	245	19
47	Oregon	13.4	47.1	54.8	10.6	22.3	13.3	204	352	254	114	239	204	90	113	50
48	California	47.6	32.3	42.9	17.7	23.4	18.3	456	494	352	332	287	247	124	207	105
49	New England	31.6	23.7	30.7	8.8	15.7	3.8	309	321	262	242	193	233	67	128	29
50	Middle Atlantic	32.2	26.0	34.1	11.0	16.2	11.6	304	296	243	227	182	181	77	114	62
51	East North Central	30.3	28.4	30.8	12.1	13.4	12.4	201	289	218	144	196	155	57	93	63
52	West North Central	36.8	29.6	33.0	10.5	12.7	8.6	423	345	244	329	241	194	94	104	50
53	South Atlantic	30.6	28.8	34.9	12.1	15.6	12.1	378	349	223	271	226	166	107	123	57
54	East South Central	28.0	25.5	25.7	13.2	15.2	7.3	303	297	187	206	186	146	97	111	41
55	West South Central	33.9	36.9	38.9	10.0	16.5	11.0	397	336	250	307	232	195	90	104	55
56	Mountain	28.1	23.6	46.4	13.9	16.5	14.7	318	217	175	213	128	133	105	89	42
57	Pacific	20.0	41.5	83.7	10.4	35.8	15.0	304	484	502	200	260	426	104	224	76
	United States	30.3	28.5	32.8	11.3	15.1	10.7	281	316	232	205	207	175	76	109	57

NOTE.—"Expenses" as reported by the census are not strictly comparable for the years 1902, 1907, and 1912. Interest on funded debt amounting to $27,991,762 for all stations was omitted from expenses in 1907. Depreciation charges of $18,843,863 and sinking fund charges of $1,654,035, or $20,497,898 for all stations amounting to 8.7 per cent of the total, are included in the expenses of 1912, with no corresponding entries in 1902 and 1907. Except for depreciation and sinking fund charges, the columns headed "Surplus" gives surplus for 1902 and 1912 and net income for 1907.

Amounts for Maryland, Delaware, and District of Columbia are combined in the reports of the Census Bureau for all years, and in Idaho, Montana, and Rhode Island for 1907. Amounts for the individual State have been estimated on the assumption that total amounts are in proportion to total power output.

[a] See note.

TABLE 47.—COMMERCIAL AND MUNICIPAL CENTRAL STATIONS—GROSS AND NET INCOME, EXPENSES AND SURPLUS, 1912, BY STATES AND BY GEOGRAPHIC DIVISIONS.

		Income, electric service.	All other income.	Gross income.	Operating expenses.	Taxes, insurance, depreciation.	Interest and sinking fund.	Total expenses.	Net income.	Surplus.
	New England:									
1	Maine	$1,815,086	$303,422	$2,118,508	$855,403	$139,156	$583,379	$1,577,938	$1,123,949	$540,570
2	New Hampshire	2,200,733	127,530	2,328,263	913,879	231,900	450,373	1,596,152	1,182,484	732,111
3	Vermont	1,182,797	45,564	1,228,361	529,546	78,895	216,002	824,443	619,920	403,918
4	Massachusetts	15,996,463	310,446	16,306,909	8,046,743	2,689,231	915,765	11,651,739	5,570,935	4,655,170
5	Rhode Island	2,204,999	100,177	2,305,176	1,122,780	323,589	208,479	1,654,848	858,807	650,328
6	Connecticut	5,057,132	290,420	5,347,552	2,619,185	594,578	895,548	4,109,311	2,133,789	1,238,241
	Middle Atlantic:									
7	New York	53,189,000	4,029,973	57,218,973	26,607,075	9,021,345	8,669,449	44,297,869	21,590,553	12,921,104
8	New Jersey	10,587,513	356,854	10,944,367	5,709,775	654,223	2,984,866	9,348,864	4,580,369	1,595,503
9	Pennsylvania	23,482,208	905,655	24,387,863	12,324,315	1,830,824	4,019,545	18,174,684	10,232,724	6,213,179
	East North Central:									
10	Ohio	11,514,628	390,483	11,905,111	5,445,614	2,107,625	1,169,054	8,722,293	4,351,872	3,182,818
11	Indiana	7,417,484	293,739	7,711,223	4,160,055	734,000	1,134,854	6,028,909	2,817,168	1,682,314
12	Illinois	27,376,119	2,669,178	30,045,297	16,086,346	3,605,035	3,866,506	23,557,887	10,353,916	6,487,410
13	Michigan	11,127,031	391,225	11,518,256	6,648,359	1,243,094	1,892,685	9,784,138	3,626,803	1,734,118
14	Wisconsin	5,955,194	319,395	6,274,589	3,635,000	840,285	845,973	5,321,258	1,799,304	953,331
	West North Central:									
15	Minnesota	6,647,199	290,642	6,937,841	3,528,311	481,228	1,570,986	5,580,525	2,928,302	1,357,316
16	Iowa	4,078,167	327,198	4,405,365	2,569,117	283,284	476,339	3,328,740	1,552,964	1,076,625
17	Missouri	9,299,495	447,105	9,746,600	4,547,838	1,344,393	1,592,622	7,484,853	3,854,369	2,261,747
18	North Dakota	835,504	37,607	873,111	499,602	99,269	115,423	714,294	274,240	158,817
19	South Dakota	1,095,922	66,600	1,162,522	638,329	89,469	237,965	965,763	434,724	196,759
20	Nebraska	2,678,240	124,374	2,802,614	1,677,009	333,418	229,115	2,239,542	792,187	563,072
21	Kansas	2,909,012	111,142	3,020,154	1,900,568	293,352	432,350	2,626,270	826,234	393,884
	South Atlantic:									
22	Delaware	258,278	4,219	262,497	105,849	19,340	35,097	203,553	102,192	58,945
23	Maryland and District of Columbia	4,888,256	79,851	4,968,107	2,189,508	599,214	1,107,047	3,852,502	2,214,501	1,115,604
24	Virginia	794,858	10,164	805,022	402,771	47,774	116,914	567,459	354,477	237,563
25	West Virginia	1,148,089	19,494	1,167,583	670,859	87,782	139,202	897,843	408,942	269,740
26	North Carolina	1,404,167	54,619	1,458,786	773,174	51,183	221,860	1,046,217	634,429	412,569
27	South Carolina	4,265,983	233,817	4,499,800	1,994,299	225,375	630,987	2,850,661	2,280,126	1,649,139
28	Georgia	1,881,985	86,614	1,968,599	1,068,689	88,963	497,768	1,655,420	810,947	313,179
29	Florida	1,338,781	22,420	1,361,201	846,801	127,521	78,374	1,052,696	386,879	308,505
	East South Central:									
30	Kentucky	2,683,137	70,978	2,754,115	1,498,155	291,124	455,627	2,244,906	964,836	509,209
31	Tennessee	2,408,762	39,456	2,448,218	1,090,777	136,492	526,606	1,753,875	1,220,949	694,343
32	Alabama	1,234,540	23,180	1,257,720	662,234	77,442	240,493	980,169	518,044	277,551
33	Mississippi	1,146,583	21,204	1,167,787	698,660	49,218	130,501	878,379	419,909	289,408
	West South Central:									
34	Arkansas	1,016,664	37,099	1,053,763	586,155	49,144	113,730	749,029	418,464	304,734
35	Louisiana	2,251,102	27,652	2,278,754	1,079,882	219,180	304,957	1,604,019	979,692	674,735
36	Oklahoma	2,287,329	70,621	2,357,950	1,311,253	220,944	356,509	1,888,706	825,753	469,244
37	Texas	6,654,616	129,356	6,783,972	3,802,578	466,385	654,677	4,924,093	2,514,556	1,859,879
	Mountain:									
38	Montana	3,292,385	591,025	3,883,410	1,071,539	222,644	1,117,485	2,411,668	2,589,227	1,471,742
39	Idaho	1,580,082	35,858	1,615,940	641,990	121,010	774,260	1,537,260	852,940	78,680
40	Wyoming	595,465	11,630	607,095	350,229	32,036	63,524	445,789	224,330	161,306
41	Colorado	4,626,693	164,647	4,791,340	2,274,594	270,333	1,452,833	3,997,760	2,246,413	793,580
42	New Mexico	488,422	9,473	497,895	327,969	38,327	83,220	449,516	131,599	48,379
43	Arizona	1,128,862	44,324	1,173,186	600,667	107,170	215,421	923,258	465,349	249,924
44	Utah	1,530,060	19,205	1,549,265	807,769	165,158	233,802	1,206,729	576,338	342,536
45	Nevada	607,597	11,345	618,942	255,770	30,528	141,957	428,255	332,644	190,687
	Pacific:									
46	Washington	2,976,297	111,424	3,087,721	1,548,409	238,431	483,292	2,270,132	1,300,881	817,589
47	Oregon	1,390,785	41,918	1,422,703	663,350	103,731	438,657	1,205,738	655,622	216,965
48	California	26,461,154	1,224,419	27,685,573	12,762,412	3,206,257	6,834,857	22,803,526	11,716,904	4,882,047
49	New England	28,457,210	1,177,559	29,634,769	14,087,536	4,057,349	3,269,546	21,414,431	11,489,884	8,220,338
50	Middle Atlantic	87,258,721	5,292,482	92,551,203	44,641,165	11,506,392	15,673,860	71,821,417	36,403,646	20,729,786
51	East North Central	63,390,456	4,064,020	67,454,476	35,975,374	8,530,039	8,909,072	53,414,485	22,949,063	14,039,991
52	West North Central	27,543,539	1,404,668	28,948,207	15,360,774	2,924,413	4,654,800	22,939,987	10,663,020	6,008,220
53	South Atlantic	15,980,397	511,198	16,491,595	8,051,950	1,247,152	2,827,249	12,126,351	7,192,493	4,365,244
54	East South Central	7,473,022	154,818	7,627,840	3,949,826	554,276	1,353,227	5,857,329	3,123,738	1,770,511
55	West South Central	12,209,711	264,728	12,474,439	6,779,868	956,106	1,429,873	9,165,847	4,738,465	3,308,592
56	Mountain	13,849,566	887,507	14,737,073	6,330,527	987,206	4,082,502	11,400,235	7,419,340	3,336,838
57	Pacific	30,818,236	1,377,761	32,195,997	14,974,171	3,548,419	7,756,806	26,279,396	13,673,407	5,916,601
	United States	286,980,858	15,134,741	302,115,599	150,151,191	34,311,352	49,956,935	234,419,478	67,117,653	696,121,056

NOTE.—"Gross income" is made up of "Income from electric service," including estimated value of free service, and "All other income," such as interest and dividends upon investments, etc. "Net income" equals gross income, less operating expenses, taxes, insurance, and depreciation. "Total expenses" covers expenditures for all purposes. "Operating expenses" covers expenditures for fuel and other supplies, salaries, wages, rentals, electric current purchased, and payments for injuries and damages.

Amounts for Delaware, Maryland, and District of Columbia are combined in the reports of the Census Bureau. Amounts for Delaware, and for Maryland and District of Columbia have been estimated by prorating income and operating expense in proportion to power output, and taxes, etc., and interest, etc., in proportion to primary power.

TABLE 48.—COMMERCIAL AND MUNICIPAL CENTRAL STATIONS—GROSS AND NET INCOME, EXPENSES AND SURPLUS PER HORSEPOWER YEAR OF OUTPUT, 1912, AND RATIO OF NET TO GROSS INCOME, BY STATES AND BY GEOGRAPHIC DIVISIONS.

		Income, electric service.	All other income.	Gross income.	Operating expenses.	Taxes, insurance, depreciation.	Interest and sinking fund.	Total expenses.	Net income.	Surplus.	Ratio net to gross income.
	New England:										
1	Maine	$101	$17	$118	$48	$8	$32	$88	$62	$30	0.531
2	New Hampshire	113	7	120	47	12	23	82	61	38	.508
3	Vermont	137	5	142	61	9	25	95	72	47	.505
4	Massachusetts	271	5	276	136	46	15	197	94	79	.342
5	Rhode Island	232	10	242	118	34	22	174	90	68	.373
6	Connecticut	253	14	267	131	30	44	205	106	62	.399
	Middle Atlantic:										
7	New York	160	12	172	80	27	26	133	65	39	.377
8	New Jersey	180	6	186	97	11	51	159	78	27	.419
9	Pennsylvania	155	6	161	82	12	26	120	67	41	.420
	East North Central:										
10	Ohio	189	6	195	89	35	19	143	71	52	.366
11	Indiana	204	8	212	115	20	31	166	77	46	.365
12	Illinois	156	15	171	92	20	22	134	59	37	.345
13	Michigan	138	5	143	83	15	23	121	45	22	.315
14	Wisconsin	180	10	190	110	25	26	161	55	29	.287
	West North Central:										
15	Minnesota	234	10	244	124	17	55	196	103	48	.422
16	Iowa	396	32	428	249	28	46	323	151	105	.353
17	Missouri	261	12	273	127	38	45	210	108	63	.395
18	North Dakota	443	20	463	265	53	61	379	145	84	.314
19	South Dakota	289	18	307	168	24	63	255	115	52	.374
20	Nebraska	311	14	325	194	39	27	260	92	65	.283
21	Kansas	143	5	148	93	15	21	129	40	19	.274
	South Atlantic:										
22	Delaware	495	8	503	203	37	67	307	263	196	.389
23	Maryland and District of Columbia	495	8	503	221	61	112	394	221	109	.446
24	Virginia	181	2	183	91	11	27	129	81	54	.440
25	West Virginia	177	3	180	103	14	21	138	63	42	.350
26	North Carolina	130	5	135	71	5	21	97	59	38	.435
27	South Carolina	78	4	82	36	4	12	52	42	30	.507
28	Georgia	140	6	146	79	7	37	123	60	23	.412
29	Florida	337	6	343	213	32	20	265	98	78	.284
	East South Central:										
30	Kentucky	232	6	238	130	25	39	194	83	44	.350
31	Tennessee	208	3	211	94	12	45	151	105	60	.499
32	Alabama	166	3	169	89	10	33	132	70	37	.412
33	Mississippi	268	5	273	163	12	30	205	98	68	.360
	West South Central:										
34	Arkansas	373	14	387	215	18	42	275	154	112	.397
35	Louisiana	801	10	811	384	78	109	571	349	240	.430
36	Oklahoma	306	9	315	175	30	47	252	110	63	.350
37	Texas	291	6	297	167	20	29	216	110	81	.371
	Mountain:										
38	Montana	57	10	67	19	4	19	42	44	25	.667
39	Idaho	89	2	91	36	7	44	87	48	4	.528
40	Wyoming	335	7	342	197	18	36	251	127	91	.370
41	Colorado	183	6	189	90	11	57	158	88	31	.469
42	New Mexico	353	7	360	237	28	60	325	95	35	.264
43	Arizona	223	9	232	119	21	43	183	92	49	.397
44	Utah	116	1	117	61	12	18	91	44	26	.372
45	Nevada	88	2	90	37	4	21	62	49	28	.537
	Pacific:										
46	Washington	272	10	282	141	22	44	207	119	75	.421
47	Oregon	153	5	158	74	11	49	134	73	24	.461
48	California	98	5	103	47	12	26	85	44	18	.423
49	New England	211	9	220	105	30	24	159	85	61	.388
50	Middle Atlantic	160	10	170	82	21	29	132	67	38	.393
51	East North Central	164	10	174	93	22	23	138	59	36	.340
52	West North Central	252	13	265	140	27	43	210	98	55	.368
53	South Atlantic	153	5	158	77	12	27	116	69	42	.436
54	East South Central	215	4	219	113	16	39	168	90	51	.410
55	West South Central	341	7	348	189	27	40	256	132	92	.380
56	Mountain	107	7	114	49	8	31	88	57	26	.503
57	Pacific	107	5	112	52	12	27	91	48	21	.425
	United States	162	9	171	85	20	28	133	66	38	.389

NOTE.—"Gross income" is made up of "Income from electric service," including estimated value of free service, and "All other income," such as interest and dividends on investments, etc. "Net income" equals gross income less operating expenses, taxes, insurance, and depreciation. "Total expenses" covers expenditures for all purposes. "Operating expenses" covers expenditures for fuel and other supplies, salaries, wages, rentals, electric current purchased, and payments for injuries and damages.

Amounts for Delaware, Maryland, and District of Columbia are combined in the reports of the Census Bureau. Amounts for Delaware and for Maryland and District of Columbia have been estimated by prorating income and operating expense in proportion to power output, and taxes, etc., and interest, etc., in proportion to primary power.

TABLE 49.—COMMERCIAL CENTRAL STATIONS—GROSS AND NET INCOME, EXPENSES AND SURPLUS, 1912, BY STATES AND BY GEOGRAPHIC DIVISIONS.

		Income, electric service.	All other income.	Gross income.	Operating expenses.	Taxes, insurance, depreciation.	Interest and sinking fund.	Total expenses.	Net income.	Surplus.
	New England:									
1	Maine	$1,735,191	$302,822	$2,038,013	$804,750	$138,150	$578,229	$1,521,129	$1,095,113	$516,884
2	New Hampshire	2,175,658	126,973	2,302,631	902,346	230,218	445,999	1,578,563	1,170,067	724,068
3	Vermont	1,031,174	29,912	1,061,086	438,619	70,824	188,188	697,631	551,643	363,455
4	Massachusetts	14,740,509	273,053	15,013,562	7,253,954	2,548,827	817,979	10,620,760	5,210,781	4,392,802
5	Rhode Island	2,194,451	100,177	2,294,628	1,117,535	323,237	208,022	1,648,794	853,856	645,834
6	Connecticut	4,780,489	287,854	5,068,343	2,469,064	572,416	852,530	3,894,010	2,026,863	1,174,333
	Middle Atlantic:									
	New York	52,605,611	4,013,379	56,618,990	26,216,384	8,988,490	8,634,994	43,839,868	21,414,116	12,779,122
8	New Jersey	10,462,106	354,443	10,816,549	5,626,905	646,966	2,975,741	9,249,612	4,542,678	1,566,937
9	Pennsylvania	22,854,245	891,768	23,746,013	11,914,433	1,823,986	3,971,556	17,709,975	10,007,594	6,036,038
	East North Central:									
10	Ohio	9,945,996	351,617	10,297,613	4,473,282	2,033,750	1,039,864	7,546,896	3,790,581	2,750,717
11	Indiana	6,071,467	263,801	6,335,268	3,303,403	712,559	1,090,149	5,106,111	2,319,306	1,229,157
12	Illinois	24,989,798	2,650,034	27,639,832	14,619,529	3,469,606	3,800,200	21,889,335	9,550,697	5,750,497
13	Michigan	9,518,774	345,589	9,864,363	5,613,005	1,184,279	1,782,958	8,580,242	3,067,079	1,284,121
14	Wisconsin	5,362,652	299,934	5,662,586	3,215,489	799,337	802,779	4,817,605	1,647,760	844,981
	West North Central:									
15	Minnesota	5,614,964	244,037	5,859,001	2,806,356	449,124	1,491,871	4,747,351	2,603,521	1,111,650
16	Iowa	3,472,242	266,405	3,738,647	2,084,016	272,262	448,031	2,804,309	1,382,369	934,338
17	Missouri	8,521,947	419,782	8,941,729	4,003,399	1,320,132	1,536,663	6,860,194	3,618,198	2,081,535
18	North Dakota	719,624	30,754	750,378	417,424	90,007	106,593	614,024	242,947	136,354
19	South Dakota	952,811	62,766	1,015,577	546,881	76,023	230,088	852,992	392,673	162,585
20	Nebraska	2,143,078	102,290	2,245,368	1,309,592	318,286	198,653	1,826,531	617,490	418,837
21	Kansas	2,305,643	90,196	2,395,839	1,484,609	265,846	369,098	2,119,553	645,384	276,286
	South Atlantic:									
22	Delaware	175,779	2,908	178,687	77,518	17,263	31,945	139,117	83,906	39,570
23	Maryland and District of Columbia	4,795,354	79,329	4,874,683	2,114,721	593,888	1,098,966	3,795,184	2,166,074	1,079,499
24	Virginia	510,279	10,039	520,318	281,631	25,726	65,380	372,737	212,961	147,581
25	West Virginia	1,090,381	19,194	1,109,575	628,039	87,395	138,015	853,449	394,141	256,126
26	North Carolina	801,993	50,825	852,818	419,004	43,664	177,768	640,436	390,150	212,382
27	South Carolina	4,028,100	231,976	4,260,076	1,854,876	223,408	611,429	2,689,713	2,181,792	1,570,363
28	Georgia	1,137,931	73,058	1,210,989	586,353	79,683	442,950	1,108,986	541,953	102,003
29	Florida	613,523	18,985	632,508	386,418	32,102	62,282	480,802	213,988	151,706
	East South Central:									
30	Kentucky	2,442,619	65,635	2,508,254	1,326,495	285,882	451,026	2,063,403	895,877	444,851
31	Tennessee	1,887,218	32,007	1,919,225	864,502	131,514	493,745	1,489,761	923,209	429,464
32	Alabama	964,299	20,123	984,422	489,478	72,230	204,813	766,521	422,714	217,901
33	Mississippi	729,484	12,247	741,731	411,909	42,320	81,147	535,376	287,502	206,355
	West South Central:									
34	Arkansas	762,841	32,349	795,190	443,492	40,071	103,353	586,916	311,627	208,274
35	Louisiana	1,984,768	24,402	2,009,170	883,626	216,614	295,949	1,396,189	908,930	612,981
36	Oklahoma	1,866,233	68,293	1,934,526	982,832	214,448	284,994	1,482,274	737,246	452,252
37	Texas	6,214,194	125,556	6,339,750	3,539,400	461,578	621,217	4,622,195	2,338,772	1,717,555
	Mountain:									
38	Montana	3,226,342	585,961	3,812,303	1,025,019	213,821	1,115,227	2,354,067	2,573,463	1,458,236
39	Idaho	1,502,838	35,758	1,538,596	611,009	117,852	765,010	1,493,871	809,735	44,725
40	Wyoming	583,597	11,630	595,227	343,419	31,661	62,024	437,104	220,147	158,123
41	Colorado	4,528,086	164,247	4,692,333	2,212,276	269,319	1,445,054	3,926,649	2,210,738	765,684
42	New Mexico	467,804	9,473	477,277	312,561	38,125	80,160	430,846	126,591	46,431
43	Arizona	1,128,862	44,324	1,173,186	600,667	107,170	215,421	923,258	465,349	249,928
44	Utah	1,387,071	16,632	1,403,703	738,397	164,248	218,122	1,120,767	501,058	282,936
45	Nevada	604,711	11,345	616,056	254,265	30,528	141,957	426,750	331,263	189,306
	Pacific:									
46	Washington	1,559,019	79,555	1,638,574	831,132	143,788	373,951	1,348,871	663,654	289,703
47	Oregon	1,268,725	41,658	1,310,383	612,304	103,369	427,492	1,143,165	594,710	167,218
48	California	25,856,669	1,204,365	27,061,034	12,398,608	3,144,179	6,805,634	22,348,421	11,518,247	4,712,613
49	New England	26,657,472	1,120,791	27,778,263	12,986,268	3,883,672	3,090,947	19,960,887	10,908,323	7,817,376
50	Middle Atlantic	85,921,962	5,259,590	91,181,552	43,757,722	11,459,442	15,582,291	70,799,455	35,964,388	20,382,097
51	East North Central	55,888,687	3,910,975	59,799,662	31,224,708	8,199,531	8,515,950	47,940,189	20,375,423	11,859,473
52	West North Central	23,730,309	1,216,230	24,946,539	12,652,277	2,791,080	4,380,997	19,824,354	9,502,582	5,121,585
53	South Atlantic	13,153,340	486,314	13,639,654	6,348,560	1,103,129	2,628,735	10,080,424	6,187,965	3,559,230
54	East South Central	6,023,620	130,012	6,153,632	3,092,384	531,946	1,230,731	4,855,061	2,529,302	1,298,571
55	West South Central	10,828,036	250,600	11,078,636	5,849,350	932,711	1,305,513	8,087,574	4,296,575	2,991,062
56	Mountain	13,429,311	879,370	14,308,681	6,097,613	972,724	4,042,975	11,113,312	7,238,344	3,195,369
57	Pacific	28,684,413	1,325,578	30,009,991	13,842,044	3,391,336	7,607,077	24,840,457	12,776,611	5,169,534
	United States	264,317,150	14,579,460	278,896,610	135,850,926	33,266,171	48,385,216	217,502,313	109,79,513	617,394,297

NOTE.—"Gross income" is made up of "Income from electric service," including estimated value of free service, and "All other income," such as interest and dividends on investments, etc. "Net income" equals gross income less operating expenses, taxes, insurance, and depreciation. "Total expenses" covers expenditures for all purposes. "Operating expenses" covers expenditures for fuel and other supplies, salaries, wages, rentals, electric current purchased, and payments for injuries and damages.

Amounts for Delaware, Maryland, and District of Columbia are combined in the reports of the Census Bureau. Amounts for Delaware and for Maryland and District of Columbia have been estimated by prorating income and operating expense in proportion to power output, and taxes, etc., and interest, etc., in proportion to primary power.

TABLE 50.—COMMERCIAL CENTRAL STATIONS—GROSS AND NET INCOME, EXPENSES AND SURPLUS PER HORSE-POWER YEAR OF OUTPUT, 1912, AND RATIO OF NET TO GROSS INCOME, BY STATES AND BY GEOGRAPHIC DIVISIONS.

		Income, electric service.	All other income.	Gross income.	Operating expenses.	Taxes, insurance, depreciation.	Interest and sinking fund.	Total expenses.	Net income.	Surplus.	Ratio net to gross income.
	New England:										
1	Maine	$98	$17	$115	$45	$8	$33	$86	$62	$29	0.537
2	New Hampshire	112	7	119	47	12	23	82	60	37	.508
3	Vermont	127	4	131	54	9	23	86	68	45	.520
4	Massachusetts	268	5	273	132	46	15	193	95	80	.347
5	Rhode Island	231	11	242	118	34	22	174	90	68	.372
6	Connecticut	248	15	263	128	30	44	202	105	61	.400
	Middle Atlantic:										
7	New York	159	12	171	79	27	26	132	65	39	.378
8	New Jersey	179	6	185	96	11	51	158	78	27	.420
9	Pennsylvania	152	6	158	79	12	27	118	67	40	.421
	East North Central:										
10	Ohio	181	6	187	81	37	19	137	69	50	.368
11	Indiana	193	8	201	104	23	35	162	74	39	.366
12	Illinois	155	17	172	91	21	24	136	60	36	.346
13	Michigan	134	5	139	79	17	25	121	43	18	.311
14	Wisconsin	170	9	179	102	25	25	152	52	27	.291
	West North Central:										
15	Minnesota	214	9	223	107	17	57	181	99	42	.444
16	Iowa	397	30	427	238	31	51	320	158	107	.370
17	Missouri	254	12	266	119	39	46	204	108	62	.405
18	North Dakota	436	19	455	253	55	64	372	147	83	.324
19	South Dakota	264	17	281	151	21	64	236	109	45	.387
20	Nebraska	292	14	306	179	43	27	249	84	57	.275
21	Kansas	124	5	129	80	14	20	114	35	15	.269
	South Atlantic:										
22	Delaware	510	8	518	225	50	93	368	243	150	.470
23	Maryland and District of Columbia	510	8	518	225	63	117	405	230	113	.444
24	Virginia	162	3	165	89	8	21	118	68	47	.409
25	West Virginia	173	4	177	100	14	22	136	63	41	.355
26	North Carolina	82	5	87	43	4	18	65	40	22	.457
27	South Carolina	75	4	79	35	4	11	50	40	29	.512
28	Georgia	99	6	105	51	7	38	96	47	9	.450
29	Florida	323	10	333	203	17	33	253	113	80	.338
	East South Central:										
30	Kentucky	242	6	248	131	28	45	204	89	44	.357
31	Tennessee	188	3	191	86	13	49	148	92	43	.481
32	Alabama	146	2	148	73	11	31	115	64	33	.429
33	Mississippi	226	4	230	128	13	25	166	89	64	.388
	West South Central:										
34	Arkansas	361	15	376	210	19	49	278	147	98	.392
35	Louisiana	936	11	947	417	102	139	658	428	289	.452
36	Oklahoma	286	10	296	150	33	44	227	113	69	.381
37	Texas	288	6	294	164	21	29	214	109	80	.369
	Mountain:										
38	Montana	56	10	66	18	4	19	41	44	25	.675
39	Idaho	86	2	88	35	7	43	85	46	3	.526
40	Wyoming	332	7	339	196	18	35	249	125	90	.370
41	Colorado	179	7	186	88	10	58	156	88	30	.471
42	New Mexico	359	7	366	240	29	61	330	97	36	.265
43	Arizona	223	9	232	119	21	43	183	92	49	.397
44	Utah	109	1	110	58	13	17	88	39	22	.357
45	Nevada	87	2	89	37	4	21	62	48	27	.538
	Pacific:										
46	Washington	274	14	288	146	25	66	237	117	51	.405
47	Oregon	150	5	155	73	12	50	135	70	20	.454
48	California	97	5	102	47	12	25	84	43	18	.426
49	New England	207	9	216	101	30	24	155	85	61	.393
50	Middle Atlantic	159	10	169	81	21	29	131	67	38	.394
51	East North Central	160	11	171	89	24	24	137	58	34	.341
52	West North Central	238	12	250	127	28	44	199	95	51	.381
53	South Atlantic	136	5	141	66	11	27	104	64	37	.454
54	East South Central	201	4	205	103	18	41	162	84	43	.411
55	West South Central	334	8	342	181	29	40	250	132	92	.388
56	Mountain	105	7	112	48	8	31	87	56	25	.506
57	Pacific	102	5	107	50	12	27	89	45	18	.426
	United States	156	9	165	80	20	29	129	65	36	.394

NOTE.—"Gross income" is made up of "Income from electric service," including estimated value of free service and "All other income," such as interest and dividends upon investments, etc. "Net income" equals gross income less operating expenses, taxes, insurance, and depreciation. "Total expenses" covers expenditures for all purposes. "Operating expenses" covers expenditures for fuel and other supplies, salaries, wages, rentals, electric current purchased, and payments for injuries and damages.

Amounts for Delaware, Maryland and District of Columbia are combined in the reports of the Census Bureau. Amounts for Delaware, and for Maryland and District of Columbia have been estimated by prorating income and operating expense in proportion to power output, and taxes, etc., and interest, etc., in proportion to primary power.

TABLE 51.—MUNICIPAL CENTRAL STATIONS—GROSS AND NET INCOME, EXPENSES AND SURPLUS, 1912, BY STATES AND BY GEOGRAPHIC DIVISIONS.

		Income, electric service.	All other income.	Gross income.	Operating expenses.	Taxes, insurance, depreciation.	Interest and sinking fund.	Total expenses.	Net income.	Surplus.
	New England:									
1	Maine	$79,895	$600	$80,495	$50,653	$1,006	$5,150	$56,809	$28,836	$23,686
2	New Hampshire	25,075	557	25,632	11,533	1,682	4,374	17,589	12,417	8,043
3	Vermont	151,623	15,652	167,275	90,927	8,071	27,814	126,812	68,277	40,463
4	Massachusetts	1,255,954	37,393	1,293,347	792,789	140,404	97,786	1,030,979	360,154	262,368
5	Rhode Island	10,548	0	10,548	5,245	352	457	6,054	4,951	4,494
6	Connecticut	276,643	2,566	279,209	150,121	22,162	43,018	215,301	106,926	63,908
	Middle Atlantic:									
7	New York	583,389	16,594	599,983	390,691	32,855	34,455	458,001	176,437	141,982
8	New Jersey	125,407	2,411	127,818	82,870	7,257	9,125	99,252	37,691	28,566
9	Pennsylvania	627,963	13,887	641,850	409,882	6,838	47,989	464,709	225,130	177,141
	East North Central:									
10	Ohio	1,568,632	38,866	1,607,498	972,332	73,875	129,190	1,175,397	561,291	432,101
11	Indiana	1,346,017	29,938	1,375,955	856,652	21,441	44,705	922,798	497,862	453,157
12	Illinois	2,386,321	19,144	2,405,465	1,466,817	135,429	66,306	1,668,552	803,219	736,913
13	Michigan	1 608,257	45,636	1,653,893	1,035,354	58,815	109,727	1,203,896	559,724	449,997
14	Wisconsin	592,542	19,461	612,003	419,511	40,948	43,194	503,653	151,544	108,350
	West North Central:									
15	Minnesota	1,032,235	46,605	1,078,840	721,955	32,104	79,115	833,174	324,781	245,666
16	Iowa	605,925	60,793	666,718	485,101	11,022	28,308	524,431	170,595	142,287
17	Missouri	777,548	27,323	804,871	544,439	24,261	55,959	624,659	236,171	180,212
18	North Dakota	115,880	6,853	122,733	82,178	9,262	8,830	100,270	31,293	22,463
19	South Dakota	143,111	3,834	146,945	91,448	13,446	7,877	112,771	42,051	34,174
20	Nebraska	535,162	22,084	557,246	367,417	15,132	30,462	413,011	174,697	144,235
21	Kansas	603,369	20,946	624,315	415,959	27,506	63,252	506,717	180,850	117,598
	South Atlantic:									
22	Delaware	48,190	504	48,694	28,331	2,077	3,152	33,451	18,286	15,243
23	Maryland and District of Columbia	127,211	1,329	128,540	74,787	5,326	8,081	88,303	48,427	40,237
24	Virginia	284,579	125	284,704	121,140	22,048	51,534	194,722	141,516	89,982
25	West Virginia	57,708	300	58,008	42,820	387	1,187	44,394	14,801	13,614
26	North Carolina	602,174	3,794	605,968	354,170	7,519	44,092	405,781	244,279	200,187
27	South Carolina	237,883	1,841	239,724	139,423	1,967	19,558	160,948	98,334	78,776
28	Georgia	744,054	13,556	757,610	482,336	9,280	54,818	546,434	265,994	211,176
29	Florida	725,258	3,435	728,693	460,383	95,419	16,092	571,894	172,891	156,799
	East South Central:									
30	Kentucky	240,518	5,343	245,861	171,660	5,242	4,601	181,503	68,959	64,358
31	Tennessee	521,544	7,449	528,993	226,275	4,978	32,861	264,114	297,740	264,879
32	Alabama	270,241	3,057	273,298	172,756	5,212	35,680	213,648	95,330	59,650
33	Mississippi	417,099	8,957	426,056	286,751	6,898	49,354	343,003	132,407	83,053
	West South Central:									
34	Arkansas	253,823	4,750	258,573	142,663	9,073	10,377	162,113	106,837	96,460
35	Louisiana	266,334	3,250	269,584	196,256	2,566	9,008	207,830	70,762	61,754
36	Oklahoma	421,096	2,328	423,424	328,421	6,496	71,515	406,432	88,507	16,992
37	Texas	440,422	3,800	444,222	263,178	5,260	33,460	301,898	175,784	142,324
	Mountain:									
38	Montana	66,043	5,064	71,107	46,520	8,823	2,258	57,601	15,764	13,506
39	Idaho	77,244	100	77,344	30,981	3,158	9,250	43,389	43,205	33,955
40	Wyoming	11,868	0	11,868	6,810	375	1,500	8,685	4,683	3,183
41	Colorado	98,607	400	99,007	62,318	1,014	7,779	71,111	35,675	27,896
42	New Mexico	20,618	0	20,618	15,408	202	3,060	18,670	5,008	1,948
43	Arizona	0	0	0	0	0	0	0	0	0
44	Utah	142,989	2,573	145,562	69,372	910	15,680	85,962	75,280	59,600
45	Nevada	2,886	0	2,886	1,505	0	0	1,505	1,381	1,381
	Pacific:									
46	Washington	1,417,278	31,869	1,449,147	717,277	94,643	109,341	921,261	637,227	527,886
47	Oregon	112,060	260	112,320	51,046	362	11,165	62,573	60,912	49,747
48	California	604,485	20,054	624,539	363,804	62,078	29,223	455,105	198,657	169,434
49	New England	1,799,738	56,768	1,856,506	1,101,268	173,677	178,599	1,453,544	581,561	402,962
50	Middle Atlantic	1,336,759	32,892	1,369,651	883,443	46,950	91,569	1,021,962	439,258	347,689
51	East North Central	7,501,769	153,045	7,654,814	4,750,666	330,508	393,122	5,474,296	2,573,640	2,180,518
52	West North Central	3,813,230	188,438	4,001,668	2,708,497	132,733	273,803	3,115,033	1,160,438	886,635
53	South Atlantic	2,827,057	24,884	2,851,941	1,703,390	144,023	198,514	2,045,927	1,004,528	806,014
54	East South Central	1,449,402	24,806	1,474,208	857,442	22,330	122,496	1,002,268	594,436	471,940
55	West South Central	1,381,675	14,128	1,395,803	930,518	23,395	124,360	1,078,273	441,890	317,530
56	Mountain	420,255	8,137	428,392	232,914	14,482	39,527	286,923	180,996	141,469
57	Pacific	2,133,823	52,183	2,186,006	1,132,127	157,083	149,729	1,438,939	896,796	747,067
	United States	22,663,708	555,281	23,218,989	14,300,265	1,045,181	1,571,719	16,917,165	7,873,543	6,301,824

NOTE.—"Gross income" is made up of "Income from electric service," including estimated value of free service, and "All other income," such as interest and dividends upon investments etc. "Net income" equals gross income, less operating expenses, taxes, insurance, and depreciation. "Total expenses" covers expenditures for all purposes. "Operating expenses" covers expenditures for fuel and other supplies, salaries, wages, rentals, electric current purchased, and payments for injuries and damages.

Amounts for Delaware, Maryland, and District of Columbia are combined in the reports of the Census Bureau for all years and in Idaho, Montana, and Rhode Island for 1907. Amounts for the individual States have been estimated by prorating income and operating expense in proportion to power output, and taxes, etc., and interest, etc., in proportion to primary power.

TABLE 52.—MUNICIPAL CENTRAL STATIONS—GROSS AND NET INCOME, EXPENSES AND SURPLUS PER HORSE-POWER YEAR OF OUTPUT, 1912, AND RATIO OF NET TO GROSS INCOME, BY STATES AND BY GEOGRAPHIC DIVISIONS.

		Income, electric service.	All other income.	Gross income.	Operating expenses.	Taxes, insurance, depreciation.	Interest and sinking fund.	Total expenses.	Net income.	Surplus.	Ratio net to gross income.
	New England:										
1	Maine	$253	$2	$255	$161	$3	$16	$180	$91	$75	0.358
2	New Hampshire	353	8	361	162	24	62	248	175	113	.484
3	Vermont	252	26	278	152	13	46	211	113	67	.408
4	Massachusetts	296	9	305	187	33	23	243	85	62	.278
5	Rhode Island	586	0	586	291	20	25	336	275	250	.469
6	Connecticut	362	3	365	196	29	56	281	140	84	.383
	Middle Atlantic:										
7	New York	254	7	261	170	14	15	199	77	62	.294
8	New Jersey	369	7	376	244	21	27	292	111	84	.295
9	Pennsylvania	337	7	344	219	4	26	249	121	95	.351
	East North Central:										
10	Ohio	261	6	267	162	12	21	195	93	72	.349
11	Indiana	282	6	288	180	4	9	193	104	95	.362
12	Illinois	150	1	151	92	9	4	105	50	46	.334
13	Michigan	163	5	168	105	6	11	122	57	46	.338
14	Wisconsin	443	14	457	313	31	32	376	113	81	.248
	West North Central:										
15	Minnesota	447	20	467	312	14	35	361	141	106	.301
16	Iowa	396	40	436	317	7	19	343	112	93	.256
17	Missouri	377	13	390	264	12	27	303	114	87	.293
18	North Dakota	494	29	523	350	39	38	427	134	96	.255
19	South Dakota	800	21	821	511	75	44	630	235	191	.286
20	Nebraska	409	17	426	281	12	23	316	133	110	.314
21	Kansas	328	11	339	226	15	34	275	98	64	.290
	South Atlantic:										
22	Delaware	272	3	275	160	12	17	189	103	86	.376
23	Maryland and District of Columbia	272	3	275	160	11	18	189	104	86	.377
24	Virginia	228	0	228	97	18	41	156	113	72	.497
25	West Virginia	261	1	262	193	2	6	201	67	61	.255
26	North Carolina	590	4	594	348	7	43	398	239	196	.403
27	South Carolina	506	4	510	297	4	41	342	209	168	.410
28	Georgia	395	7	402	256	5	29	290	141	112	.351
29	Florida	351	2	353	223	46	8	277	84	76	.237
	East South Central:										
30	Kentucky	161	4	165	115	4	3	122	46	43	.280
31	Tennessee	348	5	353	151	3	22	176	199	177	.563
32	Alabama	334	4	338	214	6	44	264	118	74	.349
33	Mississippi	394	8	402	270	7	47	324	125	78	.311
	West South Central:										
34	Arkansas	415	8	423	233	15	17	265	175	158	.413
35	Louisiana	388	5	393	286	4	13	303	103	90	.262
36	Oklahoma	441	2	443	343	7	75	425	93	18	.209
37	Texas	350	3	353	209	4	27	240	140	113	.396
	Mountain:										
38	Montana	211	16	227	149	28	7	184	50	43	.222
39	Idaho	544	1	545	219	22	65	306	304	239	.559
40	Wyoming	659	0	659	378	21	83	482	260	177	.395
41	Colorado	478	2	480	302	5	38	345	173	135	.360
42	New Mexico	261	0	261	194	3	39	236	64	25	.243
43	Arizona										
44	Utah	242	4	246	117	2	26	145	127	101	.517
45	Nevada										.479
	Pacific										
46	Washington	269	6	275	136	18	21	175	121	100	.440
47	Oregon	203	1	204	93	1	20	114	110	90	.542
48	California	441	15	456	266	45	21	332	145	124	.318
49	New England	300	9	309	183	29	30	242	97	67	.313
50	Middle Atlantic	297	7	304	197	10	20	227	97	77	.321
51	East North Central	197	4	201	125	9	10	144	67	57	.336
52	West North Central	403	20	423	286	14	29	329	123	94	.290
53	South Atlantic	375	3	378	226	19	26	271	133	107	.352
54	East South Central	298	5	303	176	5	25	206	122	97	.403
55	West South Central	393	4	397	265	7	35	307	125	90	.317
56	Mountain	312	6	318	173	11	29	213	134	105	.423
57	Pacific	297	7	304	157	22	21	200	125	104	.410
	United States	274	7	281	173	13	19	205	95	76	.339

NOTE.—"Gross income" is made up of "Income from electric service," including estimated value of free service, and "All other income," such as interest and dividends upon investments, etc. "Net income" equals gross income, less operating expenses, taxes, insurance, and depreciation. "Total expenses" covers expenditures for all purposes. "Operating expenses" covers expenditures for fuel and other supplies, salaries, wages, rentals, electric current purchased, and payments for injuries and damages.

Amounts for Delaware, Maryland, and District of Columbia are combined in the reports of the Census Bureau for all years, and in Idaho, Montana, and Rhode Island for 1907. Amounts for the individual States have been estimated by prorating income and operating expense in proportion to power, output, and taxes, etc., in proportion to primary power.

TABLE 53.—PRIMARY POWER—WATER POWER, STEAM POWER, AND GAS POWER, 1915, IN HORSEPOWER AND GENERATOR CAPACITIES IN KILO-VOLT-AMPERES, IN COMMERCIAL AND MUNICIPAL CENTRAL STATIONS, STREET AND ELECTRIC RAILWAYS, AND A FEW MANUFACTURING PLANTS, BY STATES AND GEOGRAPHIC DIVISIONS.

		Commercial central stations.					Municipal central stations.				
		Water power.	Steam power.	Gas power.	Total power.	Generators.	Water power.	Steam power.	Gas power.	Total power.	Generators.
	New England:										
1	Maine	103,221	33,871	155	137,247	81,933	1,996	805	.....	2,801	1,450
2	New Hampshire	48,815	31,370	1,695	81,880	45,734	600	545	.....	1,145	700
3	Vermont	81,963	22,171	989	108,123	70,984	4,910	1,830	.....	6,740	4,347
4	Massachusetts	119,287	385,139	1,507	506,233	365,858	1,270	31,573	980	33,823	21,166
5	Rhode Island	2,485	90,710	1,625	94,820	45,295	.....	.....	.....	.....	.....
6	Connecticut	41,910	101,099	75	143,084	104,689	.....	10,135	755	10,890	6,450
	Middle Atlantic:										
7	New York	587,637	812,206	6,306	1,406,149	997,731	2,005	8,581	1,390	11,976	7,945
8	New Jersey	9,835	305,585	1,710	317,130	221,283	112	2,770	115	2,997	2,255
9	Pennsylvania	167,862	598,162	9,585	775,609	571,704	538	13,739	1,810	16,087	11,663
	East North Central:										
10	Ohio	19,773	555,674	5,938	581,385	436,321	175	53,450	2,309	55,934	39,889
11	Indiana	7,891	277,361	2,960	288,212	221,189	200	28,980	285	29,465	22,580
12	Illinois	48,650	806,736	3,852	859,238	628,363	.....	20,706	200	20,906	13,661
13	Michigan	186,289	287,788	718	474,825	325,960	10,972	41,492	687	53,151	38,866
14	Wisconsin	155,930	177,510	7,268	340,738	219,248	3,143	13,809	1,225	18,177	12,656
	West North Central:										
15	Minnesota	188,495	124,560	1,597	314,652	222,102	1,399	19,896	2,303	23,598	17,561
16	Iowa	158,721	129,891	1,442	290,054	239,769	710	14,517	1,595	16,822	11,724
17	Missouri	20,590	241,330	3,069	264,989	212,891	.....	19,331	170	19,501	14,193
18	North Dakota	80	15,477	706	16,263	12,194	.....	2,420	242	2,662	1,703
19	South Dakota	12,595	14,115	17,963	44,673	23,961	.....	1,420	936	2,356	1,645
20	Nebraska	5,674	47,174	2,516	55,364	39,623	5,050	12,490	1,924	19,464	14,073
21	Kansas	11,563	63,080	4,544	79,187	52,041	125	22,160	4,172	26,457	17,381
	South Atlantic:										
22	Delaware	54	16,300	250	16,604	11,725	.....	1,535	.....	1,535	1,200
23	Maryland and District of Columbia	2,539	203,650	505	206,694	151,849	.....	2,533	.....	2,533	2,595
24	Virginia	70,275	87,899	310	158,484	112,023	6,124	6,278	.....	12,402	7,703
25	West Virginia	7,637	102,458	2,825	112,920	89,809	.....	1,600	155	1,755	824
26	North Carolina	91,183	69,333	1,750	162,266	110,259	1,035	8,923	.....	9,958	7,176
27	South Carolina	206,612	36,450	.....	243,062	162,161	.....	4,625	.....	4,625	3,630
28	Georgia	203,406	96,574	.....	299,980	215,660	500	16,127	.....	16,627	11,442
29	Florida	7,030	25,685	1,165	33,880	23,361	.....	12,697	.....	12,697	9,628
	East South Central:										
30	Kentucky	.....	71,090	1,035	72,125	53,284	.....	7,730	.....	7,730	6,131
31	Tennessee	97,535	68,824	80	166,439	129,074	300	6,421	225	6,946	5,250
32	Alabama	81,784	68,864	.....	150,648	122,909	682	6,832	15	7,529	5,430
33	Mississippi	.....	31,780	100	31,880	30,129	.....	10,473	150	10,623	7,546
	West South Central:										
34	Arkansas	2,200	44,857	245	47,302	31,377	.....	5,132	130	5,262	3,771
35	Louisiana	.....	76,784	2,335	79,119	71,370	.....	7,206	855	8,061	5,824
36	Oklahoma	1,400	44,513	5,500	51,413	37,896	358	11,573	855	12,786	8,687
37	Texas	6,552	190,105	13,347	210,004	157,450	225	6,925	324	7,474	5,845
	Mountain:										
38	Montana	189,405	30,353	75	219,833	137,237	.....	1,005	.....	1,005	700
39	Idaho	148,410	9,430	500	158,340	111,795	1,350	.....	.....	1,350	600
40	Wyoming	2,364	14,345	20	16,729	11,160	40	335	36	411	227
41	Colorado	82,925	80,353	130	163,408	103,455	975	2,775	.....	3,750	2,317
42	New Mexico	552	12,660	.....	13,212	12,362	.....	300	385	685	485
43	Arizona	33,630	53,655	870	88,155	61,802	.....	.....	.....	.....	50
44	Utah	87,872	29,164	.....	117,036	76,322	7,151	650	.....	7,801	4,757
45	Nevada	13,150	2,600	744	16,494	12,078	.....	.....	.....	.....	.....
	Pacific:										
46	Washington	265,491	78,404	166	344,061	232,999	54,510	13,450	.....	67,960	41,010
47	Oregon	120,362	60,949	250	181,561	110,835	4,646	210	32	4,888	2,815
48	California	676,425	461,917	2,055	1,140,397	778,332	45,700	12,000	.....	57,700	40,315
49	New England	400,681	664,660	6,046	1,071,387	714,490	8,776	44,888	1,735	55,399	34,113
50	Middle Atlantic	765,334	1,715,953	17,601	2,498,888	1,790,718	2,655	25,090	3,315	31,060	21,802
51	East North Central	418,533	2,105,099	20,766	2,544,398	1,831,081	14,490	158,437	4,706	177,633	127,763
52	West North Central	397,718	635,627	31,837	1,065,182	802,581	7,284	92,234	11,342	110,860	78,280
53	South Atlantic	588,736	638,349	6,805	1,233,890	876,847	7,659	54,318	155	62,132	44,198
54	East South Central	179,319	240,558	1,215	421,092	335,396	982	31,456	390	32,828	24,357
55	West South Central	10,152	356,259	21,427	387,838	298,093	583	30,836	2,164	33,583	24,127
56	Mountain	558,308	232,560	2,339	793,207	526,211	9,516	5,065	421	15,002	9,136
57	Pacific	1,062,278	601,270	2,471	1,666,019	1,122,166	104,856	25,660	32	130,548	84,140
	United States	4,381,059	7,190,335	110,507	11,706,901	8,297,583	156,801	467,984	24,260	649,045	447,916

NOTE.—The term "Steam power" includes steam engines and steam turbines; "Water power," water wheels, turbines, and motors; and "Gas power," internal-combustion engines using either gas or oil fuel.

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TABLE 53.—PRIMARY POWER—WATER POWER, STEAM POWER, AND GAS POWER, 1915, IN HORSEPOWER AND GENERATOR CAPACITIES IN KILO-VOLT-AMPERES, IN COMMERCIAL AND MUNICIPAL CENTRAL STATIONS, STREET AND ELECTRIC RAILWAYS, AND A FEW MANUFACTURING PLANTS, BY STATES AND BY GEOGRAPHIC DIVISIONS—Continued.

		Street and electric railways and manufactures.[a]					All stations.				
		Water power.	Steam power.	Gas power.	Total power.	Generators.	Water power.	Steam power.	Gas power.	Total power.	Generators.
	New England:										
1	Maine	172,372	26,595	.....	198,967	18,069	277,589	61,271	155	339,015	101,452
2	New Hampshire	59,000	7,410	.....	66,410	3,481	108,415	39,325	1,695	149,435	49,945
3	Vermont	28,016	2,975	.....	30,991	2,340	117,889	26,976	989	145,854	77,668
4	Massachusetts	33,128	228,957	850	262,935	162,936	153,685	645,969	3,337	802,991	549,960
5	Rhode Island	.....	.....	.....	.....	.....	2,485	90,710	1,625	94,820	45,295
6	Connecticut	.....	38,670	.....	38,670	22,455	41,910	149,904	830	192,644	133,594
	Middle Atlantic:										
7	New York	209,888	639,206	2,661	851,755	429,718	799,530	1,459,993	10,357	2,269,880	1,435,394
8	New Jersey	.....	19,455	.....	19,455	12,532	9,947	327,810	1,825	339,582	236,070
9	Pennsylvania	133	203,122	110	203,365	138,861	168,533	815,023	11,505	995,061	722,22
	East North Central:										
10	Ohio	.....	112,168	250	112,418	79,025	19,948	712,292	8,497	749,737	555,185
11	Indiana	.....	8,195	.....	8,195	7,200	8,091	314,536	3,245	325,872	250,969
12	Illinois	5,751	32,830	.....	38,581	22,879	54,401	860,272	4,052	918,725	664,903
13	Michigan	15,850	58,836	.....	74,686	50,350	213,111	388,116	1,435	602,662	415,276
14	Wisconsin	74,496	8,385	900	83,781	7,100	233,569	199,734	9,393	442,696	239,004
	West North Central:										
15	Minnesota	39,364	14,867	.....	54,231	11,326	229,258	159,323	3,900	392,481	250,989
16	Iowa	.....	9,350	.....	9,350	6,450	159,431	153,758	3,037	316,226	257,943
17	Missouri	80	42,500	.....	42,580	29,180	20,670	303,161	3,239	327,070	256,264
18	North Dakota	.....	.....	.....	.....	.....	80	17,897	948	18,925	13,897
19	South Dakota	458	.....	.....	458	275	13,053	15,535	18,899	47,487	25,881
20	Nebraska	75	23,775	40	23,890	15,925	10,799	83,439	4,480	98,718	69,621
21	Kansas	.....	1,250	2,900	4,150	6,755	11,688	86,490	11,616	109,794	76,177
	South Atlantic:										
22	Delaware	.....	.....	.....	.....	.....	54	17,835	250	18,139	12,925
23	Maryland and District of Columbia	750	10,070	.....	10,820	7,110	3,289	216,253	505	220,047	161,554
24	Virginia	17,830	19,630	.....	37,460	22,424	94,229	113,807	310	208,346	142,150
25	West Virginia	16,150	540	8,035	24,725	6,875	23,787	104,598	11,015	139,400	97,508
26	North Carolina	6,887	1,515	.....	8,402	452	99,105	79,771	1,750	180,626	117,887
27	South Carolina	20,400	5,950	.....	26,350	3,400	227,012	47,025	.....	274,037	169,191
28	Georgia	13,649	7,350	.....	20,999	7,560	217,555	120,051	.....	337,606	234,662
29	Florida	.....	.....	1,150	1,150	937	7,030	38,382	2,315	47,727	33,926
	East South Central:										
30	Kentucky	.....	48,030	.....	48,030	29,150	.....	126,850	1,035	127,885	88,565
31	Tennessee	.....	13,900	.....	13,900	8,800	97,835	89,145	305	187,285	143,124
32	Alabama	.....	1,920	.....	1,920	700	82,466	77,616	15	160,097	129,039
33	Mississippi	.....	.....	.....	.....	.....	.....	42,253	250	42,503	37,675
	West South Central:										
34	Arkansas	.....	850	.....	850	600	2,200	50,839	375	53,414	35,748
35	Louisiana	160	3,500	.....	3,660	2,210	160	87,490	3,190	90,840	79,404
36	Oklahoma	.....	5,980	330	6,310	4,865	1,758	62,066	6,685	70,509	51,448
37	Texas	.....	5,755	400	6,155	4,832	6,777	202,785	14,071	223,633	168,127
	Mountan:										
38	Montana	13,490	1,260	.....	14,750	2,665	202,895	32,618	75	235,588	140,602
39	Idaho	2,600	70	.....	2,670	1,310	152,360	9,500	500	162,360	113,705
40	Wyoming	140	200	.....	340	372	2,544	14,880	56	17,480	11,759
41	Colorado	8,403	18,780	.....	27,183	17,937	92,303	101,908	130	194,341	123,709
42	New Mexico	.....	.....	.....	.....	.....	552	12,960	385	13,897	12,847
43	Arizona	.....	.....	.....	.....	.....	33,630	53,655	870	88,155	61,852
44	Utah	1,711	1,800	.....	3,511	1,956	96,734	31,614	.....	128,348	83,035
45	Nevada	170	9,775	.....	9,945	4,750	13,320	12,375	744	26,439	16,828
	Pacific:										
46	Washington	11,133	1,800	.....	12,933	8,103	331,134	93,654	166	424,954	282,112
47	Oregon	31,755	3,500	.....	35,255	2,306	156,763	64,659	282	221,704	115,956
48	California	.....	72,950	60	73,010	55,860	722,125	546,867	2,115	1,271,107	874,507
49	New England	292,516	304,607	850	597,973	209,281	701,973	1,014,155	8,631	1,724,759	957,884
50	Middle Atlantic	210,021	861,783	2,771	1,074,575	581,111	978,010	2,602,826	23,687	3,604,523	2,393,692
51	East North Central	96,097	220,414	1,150	317,661	166,554	529,120	2,483,950	26,622	3,039,692	2,125,337
52	West North Central	39,977	91,742	2,940	134,659	69,911	424,979	819,603	46,119	1,310,701	950,772
53	South Atlantic	75,666	45,055	9,185	129,906	48,758	672,061	737,722	16,145	1,425,928	969,803
54	East South Central	.....	63,850	.....	63,850	38,650	180,301	335,864	1,605	517,770	398,403
55	West South Central	160	16,085	730	16,975	12,507	10,895	403,180	24,321	438,396	334,727
56	Mountain	26,514	31,885	.....	58,399	28,990	594,338	269,510	2,760	866,608	564,337
57	Pacific	42,888	78,250	60	121,198	66,269	1,210,022	705,180	2,563	1,917,765	1,272,575
	United States	783,839	1,713,671	17,686	2,515,196	1,222,031	5,321,699	9,371,990	152,453	14,846,142	9,967,530

[a] Totals include 736,197 water horsepower and 172,210 steam horsepower, total 908,407 horsepower used in manufactures.

NOTES.—This table summarizes the data shown in detail on succeeding pages.
The term "Steam power" includes steam engines and steam turbines; "Water power," water wheels, turbines and motors; and "Gas power," internal-combustion engines using either gas or oil fuel.

TABLE 54.—CONCENTRATION OF POWER DEVELOPMENT IN THE SEVERAL STATES SHOWING AMOUNTS OF WATER POWER, STEAM AND GAS POWER, AND OF TOTAL POWER CONTROLLED BY CERTAIN CORPORATIONS AND BY MUNICIPALITIES, IN HORSEPOWER AND IN PER CENT.

[From data collected for 1915 as appearing in Table 55, Part II. References are to the detail sheets following these summary tables.]

ALABAMA.

Reference Nos.	Name of company	Individual totals.				Cumulative totals.		Individual percentages.		Cumulative percentages.	
		Number of stations.	Water power.	Steam and gas power.	All power.	Water power.	All power.	Water power.	All power.	Water power.	All power.
4	Alabama Traction, Light & Power Co	7	72,500	18,920	91,420	72,500	91,420	87.9	57.1	87.9	57.1
39	United Gas & Electric Corporation of Connecticut	1	0	16,300	16,300	72,500	107,720	0	10.2	87.9	67.3
36	H. M. Byllesby & Co	1	0	9,330	9,330	72,500	117,050	0	5.8	87.9	73.1
23	Doherty Operating Co	1	5,000	3,420	8,420	77,500	125,470	6.1	5.3	94.0	78.4
41	West Point Manufacturing Co	2	3,950	4,200	8,150	81,450	133,620	4.8	5.1	98.8	83.5
31	Montgomery Light & Traction Co	1	0	6,670	6,670	81,450	140,290	0	4.2	98.8	87.7
33	The Sheffield Co	1	0	2,432	2,432	81,450	142,722	0	1.5	98.8	89.2
1	Alabama City, Gadsden & Attilla Ry. Co	1	0	1,500	1,500	81,450	144,222	0	.9	98.8	90.1
44	Municipal stations	34	682	6,847	7,529	82,132	151,751	.8	4.7	99.6	94.8
	All other stations	32	334	8,012	8,346	82,466	160,097	.4	5.2	100.0	100.0
	Total	81	82,466	77,631	160,097			100.0	100.0		
	Central stations and electric railways, 1912		9,880	73,525	83,403						

ARIZONA.

17	Ray Consolidated Copper Co	1	0	14,700	14,700	0	14,700	0	16.7	0	16.7
1	Arizona Copper Co	1	0	10,000	10,000	0	24,700	0	11.3	0	28.0
2	Arizona Power Co	2	9,000	750	9,750	9,000	34,450	26.8	11.0	26.8	39.0
6	Copper Queen Consolidated Mining Co	2	0	5,170	5,170	9,000	39,620	0	5.9	26.8	44.9
11	Federal Light & Traction Co	1	0	2,180	2,180	9,000	41,800	0	2.5	26.8	47.4
21,30	United States Reclamation Service and municipal stations	6	24,250	40	24,290	33,250	66,090	72.1	27.6	98.9	75.0
	All other stations	18	380	21,685	22,065	33,630	88,155	1.1	25.0	100.0	100.0
	Total	31	33,630	54,525	88,155			100.0	100.0		
	Central stations and electric railways, 1912		817	10,198	11,015						

ARKANSAS.

56	United Gas & Electric Corporation of Connecticut	1	0	9,900	9,900	0	9,900	0	18.5	0	18.5
17	H. M. Byllesby & Co	1	0	5,425	5,425	0	15,325	0	10.2	0	28.7
47	Pine Bluff Co	1	0	5,250	5,250	0	20,575	0	9.8	0	38.5
1	Arkansas Light & Power Co	7	0	3,620	3,620	0	24,195	0	6.8	0	45.3
53	Southwestern Gas & Electric Co	1	0	3,350	3,350	0	27,545	0	6.3	0	51.6
43	Merchants Lighting Co	1	0	3,330	3,330	0	30,875	0	6.2	0	57.8
28	Federal Light & Traction Co	1	0	3,000	3,000	0	33,875	0	5.6	0	63.4
51	Scofield Engineering Co. of Philadelphia	1	0	1,670	1,670	0	35,545	0	3.1	0	66.5
41	Mammoth Springs Electric Light & Power Co	1	1,600	0	1,600	1,600	37,145	72.7	3.0	72.7	69.5
52	Seven Cities Co	1	600	500	1,100	2,200	38,245	27.3	2.1	100.0	71.6
27	Fayetteville Gas & Electric Co	1	0	1,020	1,020	2,200	39,265	0	1.9	100.0	73.5
60	Municipal stations	17	0	5,262	5,262	2,200	44,527	0	9.9	100.0	83.4
	All other stations	37	0	8,887	8,887	2,200	53,414	0	16.6	100.0	100.0
	Total	71	2,200	51,214	53,414			100.0	100.0		
	Central stations and electric railways, 1912		3,040	39,564	42,604						

CALIFORNIA.

79	Pacific Gas & Electric Co	13	152,080	108,540	260,620	152,080	260,620	21.1	20.5	20.1	20.5
93	Pacific Light & Power Corporation	13	117,950	79,300	197,250	270,030	457,870	16.3	15.5	37.4	36.0
128	Southern California Edison Co	11	56,400	79,120	135,520	326,430	593,390	7.8	10.7	45.2	466.7
165	Western Power Co	4	73,330	38,670	112,000	399,760	705,390	10.2	8.8	55.4	55.5
155	United Railways Investment Co	5	65,600	25,330	90,930	465,360	796,320	9.1	7.2	64.5	62.7
115	San Joaquin Light & Power Co	8	40,150	28,950	69,100	505,510	865,420	5.6	5.4	70.1	68.1
58	Nevada California Power Co	7	37,750	10,670	48,420	543,260	913,840	5.2	3.8	75.3	72.1
66	Northern California Power Co	7	47,200	0	47,200	590,460	961,040	6.6	3.7	81.9	75.6
9	H. M. Byllesby & Co	6	17,200	20,020	37,220	607,660	998,260	2.4	2.9	84.3	78.5
92	Pacific Lighting Corporation	1	0	34,202	34,202	607,660	1,032,462	0	2.7	84.3	81.2
149	United Properties Co	6	0	33,025	33,025	607,660	1,065,487	0	2.6	84.3	83.8
198	Southern Pacific Co	2	0	23,870	23,870	607,660	1,089,357	0	1.9	84.3	85.7
58	Mount Whitney Power Co	5	14,650	9,000	23,650	622,310	1,113,007	2.0	1.9	86.3	87.6
67	Oro Electric Corporation	3	6,000	1,300	7,300	628,310	1,120,307	.8	.6	87.1	88.2
16	California-Oregon Power Co	2	5,300	0	5,300	633,610	1,125,607	.7	.4	87.8	88.6
173	Municipal stations	18	45,700	12,000	57,700	679,310	1,183,307	6.3	4.5	94.1	93.1
	All other stations	85	42,815	44,985	87,800	722,125	1,271,107	5.9	6.9	100.0	100.0
	Total	200	722,125	548,982	1,271,107			100.0	100.0		
	Central stations and electric railways, 1912		432,327	449,232	881,559						

TABLE 54.—CONCENTRATION OF POWER DEVELOPMENT IN THE SEVERAL STATES SHOWING AMOUNTS OF WATER POWER, STEAM AND GAS POWER, AND OF TOTAL POWER CONTROLLED BY CERTAIN CORPORATIONS AND BY MUNICIPALITIES, IN HORSEPOWER AND IN PER CENT—Continued.

COLORADO.

Reference Nos.	Name of company.	Individual totals.				Cumulative totals.		Individual percentages.		Cumulative percentages.	
		Number of stations.	Water power.	Steam and gas power.	All power.	Water power.	All power.	Water power.	All power.	Water power.	All power.
14	Colorado Power Co	7	41,750	4,870	46,620	41,750	46,620	45.2	24.0	45.2	24.0
26	Doherty Operating Co	1	0	24,650	24,650	41,750	71,270	0	12.7	45.2	36.7
74	Utah Securities Corporation	8	18,630	1,480	20,110	60,380	91,380	20.2	10.3	65.4	47.0
7	H. M. Byllesby & Co	5	2,400	11,894	14,294	62,780	105,674	2.6	7.4	68.0	54.4
70	United Gas & Electric Co. of Connecticut	2	4,750	6,460	11,210	67,530	116,884	5.1	5.8	73.1	60.2
33	Federal Light & Traction Co	3	0	10,670	10,670	67,530	127,554	0	5.5	73.1	65.7
83	Western Light & Power Co	1	0	10,670	10,670	67,530	138,224	0	5.5	73.1	71.2
65	Roaring Fork Electric Light & Power Co	1	3,600	0	3,600	71,130	141,824	3.9	1.8	77.0	73.0
84	Municipal stations	10	975	2,775	3,750	72,105	145,574	1.1	1.9	78.1	74.9
	All other stations	103	20,198	28,569	48,767	92,303	194,341	21.9	25.1	100.0	100.0
	Total	141	92,303	102,038	194,341			100.0	100.0		
	Central stations and electric railways, 1912		82,205	100,331	182,536						

CONNECTICUT.

12,64	New York, New Haven & Hartford R. R. Co	13	8,050	35,275	43,325	8,050	43,325	19.2	22.5	19.2	22.5
52	United Illuminating Co	2	0	31,200	31,200	8,050	74,525	0	16.2	19.2	38.7
13	The Hartford Electric Light Co	3	3,600	20,670	24,270	11,650	98,795	8.6	12.6	27.8	51.3
42	Stone & Webster	5	16,000	6,505	22,505	27,650	121,300	38.2	11.7	66.0	63.0
37	Shore Line Electric Ry. Co	2	0	6,780	6,780	27,650	128,080	0	3.5	66.0	66.5
41	Stamford Gas & Electric Co	1	0	6,080	6,080	27,650	134,160	0	3.2	66.0	69.7
30	Ponemah Mills	1	2,500	3,304	5,804	30,150	139,964	5.9	3.0	71.9	72.7
19	Meriden Electric Light Co	1	0	5,550	5,550	30,150	145,514	0	2.9	71.9	75.6
9	Derby Gas Co	1	1,000	3,567	4,567	31,150	150,081	2.4	2.4	74.3	78.0
28	Ousatonic Water Power Co	2	3,400	0	3,400	34,550	153,481	8.1	1.8	82.4	79.8
1	Atlantic Power & Light Corporation	2	2,300	850	3,150	36,850	156,631	5.5	1.6	87.9	81.4
10	Doherty Operating Co	1	0	2,733	2,733	36,850	159,364	0	1.4	87.9	82.8
71	Norwood & Westerly Traction Co	2	0	2,470	2,470	36,850	161,834	0	1.3	87.9	84.1
50	The Uncas Power Co	1	2,000	0	2,000	38,850	163,834	4.8	1.0	92.7	85.1
48	Torrington Electric Co	1	0	2,000	2,000	38,850	165,834	0	1.0	92.7	86.1
32	Putnam Light & Power Co	1	600	1,285	1,885	39,450	167,719	1.4	1.0	94.1	87.1
57	Municipal stations	6	0	10,890	10,890	39,450	178,609	0	5.6	94.1	92.7
	All other stations	27	2,460	11,575	14,035	41,910	192,644	5.9	7.3	100.0	100.0
	Total	72	41,910	150,734	192,644			100.0	100.0		
	Central stations and electric railways, 1912		20,334	141,752	162,086						

DELAWARE.

5	National Properties Co	3	0	14,800	14,800	0	14,800	0	81.8	0	81.8
11	Municipal stations	6	0	1,535	1,535	0	16,335	0	8.5	0	90.3
	All other stations	7	54	1,750	1,804	54	18,139	100.0	9.7	100.0	100.0
	Total	16	54	18,085	18,139			100.0	100.0		
	Central stations and electric railways, 1912		826	24,075	24,901						

FLORIDA.

29	Stone & Webster	4	1,400	8,615	10,015	1,400	10,015	19.9	21.0	19.9	21.0
11	Florida Power Co	1	5,600	0	5,600	7,000	15,615	79.7	11.7	99.6	32.7
34	J. G. White & Co	8	0	4,127	4,127	7,000	19,742	0	8.7	99.6	41.4
19	Miami Electric Light & Power Co	1	0	2,255	2,255	7,000	21,997	0	4.7	99.6	46.1
13	General Utilities Operating Co	1	0	2,000	2,000	7,000	23,997	0	4.2	99.6	50.3
21	Orlando Water & Light Co	1	0	1,350	1,350	7,000	25,347	0	2.8	99.6	53.1
3	Bagdad Land & Lumber Co	1	0	1,320	1,320	7,000	26,667	0	2.8	99.6	55.9
26	St. Johns Electric Co	1	0	1,300	1,300	7,000	27,967	0	2.7	99.6	58.6
45	Municipal stations	17	0	12,697	12,697	7,000	40,664	0	26.6	99.6	85.2
	All other stations	27	30	7,033	7,063	7,030	47,727	.4	14.8	100.0	100.0
	Total	62	7,030	40,697	47,727			100.0	100.0		
	Central stations and electric railways, 1912		7,100	44,604	51,704						

GEORGIA.

19	Georgia Railway & Power Co	7	100,400	33,720	134,120	100,400	134,120	46.1	39.7	46.1	39.7
47	Stone & Webster	7	29,426	18,790	48,216	129,826	182,336	13.5	14.3	59.6	54.0
16	Georgia Light, Power & Railways Co	3	33,000	4,750	37,750	162,826	220,086	15.2	11.2	74.8	65.2
60	J. G. White & Co. (Inc.)	5	20,800	8,342	29,142	183,626	249,228	9.6	8.6	84.4	73.8
42	Savannah Lighting Co	1	0	9,600	9,600	183,626	258,828	0	2.8	84.4	76.6
59	West Point Manufacturing Co	1	3,000	5,000	8,000	186,626	266,828	1.4	2.4	85.8	79.0
8	Doherty Operating Co	4	5,800	2,000	7,800	192,426	274,628	2.7	2.3	88.5	81.3
146	Fulton Bag & Cotton Mills	1	0	6,500	6,500	192,426	281,128	0	1.9	88.5	83.2
1	Albany Power & Manufacturing Co	1	2,330	2,130	4,460	194,756	285,588	1.1	1.3	89.6	84.5
55	Towaliga Falls Power Co	1	3,600	750	4,350	198,356	289,938	1.6	1.3	91.2	85.8
144	Eagle & Phoenix Mills	1	4,000	0	4,000	202,356	293,938	1.8	1.2	93.0	87.0
41	Rome Railway, Light & Power Co	1	1,500	2,330	3,830	203,856	297,768	.7	1.1	93.7	88.1
65	Municipal stations	75	1,500	16,127	17,627	205,356	315,395	.7	5.2	94.4	93.3
	All other stations	49	12,199	10,012	22,211	217,555	337,606	5.6	6.7	100.0	100.0
	Total [a]	157	217,555	120,051	337,606			100.0	100.0		
	Central stations and electric railways, 1912		82,487	88,345	170,832						

[a] Totals contain 12,649 water horsepower and 7,150 steam horsepower, total of 19,799 horsepower used in manufactures.

TABLE 54.—CONCENTRATION OF POWER DEVELOPMENT IN THE SEVERAL STATES SHOWING AMOUNTS OF WATER POWER, STEAM AND GAS POWER, AND OF TOTAL POWER CONTROLLED BY CERTAIN CORPORATIONS AND BY MUNICIPALITIES, IN HORSEPOWER AND IN PER CENT—Continued.

IDAHO.

Reference Nos.	Name of company.	Individual totals.				Cumulative totals.		Individual percentages.		Cumulative percentages.	
		Number of stations.	Water power.	Steam and gas power.	All power.	Water power.	All power.	Water power.	All power.	Water power.	All power.
49	Utah Securities Corporation	10	73,507	300	73,807	73,507	73,807	48.3	45.5	48.3	45.5
25	National Securities Corporation	9	34,350	2,000	36,350	107,857	110,157	22.5	22.4	70.8	67.9
59	Washington Water Power Co	1	16,300	0	16,300	124,157	126,457	10.7	10.0	81.5	77.9
46	Thousand Springs Power Co	1	3,000	0	3,000	127,157	129,457	2.0	1.8	83.5	79.7
14	Grangeville Electric Light & Power Co	2	1,300	0	1,300	128,457	130,757	.8	.8	84.3	80.5
8	H. M. Byllesby & Co	1	0	900	900	128,457	131,657	0	.6	84.3	81.1
47,61	United States Reclamation Service and municipal stations	5	14,350	0	14,350	142,807	146,007	9.4	8.8	93.7	89.9
	All other stations	43	9,553	6,800	16,353	152,360	162,360	6.3	10.1	100.0	100.0
	Total	72	152,360	10,000	162,360			100.0	100.0		
	Central stations and electric railways, 1912		51,850	4,525	56,375						

ILLINOIS.

40	Commonwealth Edison Co	4	0	511,150	511,150	0	511,150	0	55.6	0	55.6
191	Public Service Co. of Northern Illinois	13	5,300	55,930	61,230	5,300	572,380	9.8	6.7	9.8	62.3
231	United Light & Railways Co	1	0	42,000	42,000	5,300	614,380	0	4.6	9.8	66.9
336,64	Illinois Traction	28	4,115	35,886	40,001	9,415	654,381	7.6	4.4	17.4	71.3
105	Middle West Utilities Co	66	4,630	29,180	33,810	14,045	688,191	8.5	3.7	25.9	75.0
33	Commonwealth Power, Railway & Light Co	7	0	26,480	26,480	14,045	714,671	0	2.9	25.9	77.9
332	Chicago Surface Lines	2	0	24,000	24,000	14,045	738,671	0	2.6	25.9	80.5
9	Aurora, Elgin & Chicago R. R. Co	2	75	21,430	21,505	14,120	760,176	.1	2.3	26.0	82.8
3	American Gas Co	2	1,680	16,700	18,380	15,800	778,556	3.1	2.0	29.1	84.8
27	E. W. Clark & Co. Mortgage Corporation	4	0	19,100	19,100	15,800	797,656	0	2.1	29.1	86.9
20	H. M. Byllesby & Co	1	0	9,660	9,660	15,800	807,316	0	1.0	29.1	87.9
205	Rock Island Southern Ry. Co	2	0	5,200	5,200	15,800	812,516	0	.6	29.1	88.5
211	Southern Illinois Light and Power Co	7	0	4,546	4,546	15,800	817,062	0	.5	29.1	89.0
248	Municipal stations [a]	86	34,500	20,906	55,406	50,300	873,458	63.4	6.0	92.5	95.0
	All other stations	119	4,101	41,156	46,257	54,401	918,725	7.5	5.0	100.0	100.0
	Total	344	54,401	864,324	918,725			100.0	100.0		
	Central stations and electric railways, 1912		42,562	777,849	820,411						

INDIANA.

65	Indianapolis Light & Heat Co	1	0	40,900	40,900	0	40,900	0	12.5	0	12.5
48	Fort Wayne & Northern Indiana Traction Co	3	0	32,160	32,160	0	73,060	0	9.9	0	22.4
7	American Public Utilities Co	2	0	24,200	24,200	0	97,260	0	7.4	0	29.8
92	Middle West Utilities Co	21	4,400	19,430	23,830	4,400	121,090	54.4	7.3	54.4	37.1
139	Terre Haute, Indianapolis & El. Tr. Co	8	0	22,800	22,800	4,400	143,890	0	7.0	54.4	44.1
148	Union Traction Co. of Indiana	4	0	17,930	17,930	4,400	161,820	0	5.5	54.4	49.6
3	American Gas & Electric Co	4	0	16,890	16,890	4,400	178,710	0	5.2	54.4	54.8
155	The United Gas Improvement Co	1	0	15,566	15,566	4,400	194,276	0	4.8	54.4	59.6
63	Indiana & Michigan Electric Co	2	1,300	13,330	14,630	5,700	208,906	16.1	4.5	70.5	64.1
32	Commonwealth Power, Railway & Light Co	1	0	13,070	13,070	5,700	221,976	0	4.0	70.5	68.1
28	Chicago, Lake Shore & South Bend Ry. Co	1	0	10,000	10,000	5,700	231,976	0	3.1	70.5	71.2
66	Indiana Railway & Light Co	1	0	9,750	9,750	5,700	241,726	0	3.0	70.5	74.2
245	Indianapolis & Cincinnati Traction Co	1	0	2,670	2,670	5,700	244,396	0	.8	70.5	75.0
169	Municipal stations	70	200	29,265	29,465	5,900	273,861	2.5	9.0	73.0	84.0
	All other stations	126	2,191	49,820	52,011	8,091	325,872	27.0	16.0	100.0	100.0
	Total	246	8,091	317,781	325,872			100.0	100.0		
	Central stations and electric railways, 1912		23,915	283,508	307,423						

IOWA.

169	Stone & Webster	3	150,000	0	150,000	150,000	150,000	94.1	47.4	94.1	47.4
93	Iowa Railway & Light Co	12	0	23,255	23,255	150,000	173,255	0	7.4	94.1	54.8
77	Illinois Traction Co	6	300	15,649	15,949	150,300	189,204	.2	5.1	94.3	59.9
27	Central Iowa Light & Power Co	3	0	10,400	10,400	150,300	199,604	0	3.3	94.3	63.2
180	Union Electric Co. of Dubuque	1	0	9,500	9,500	150,300	209,104	0	3.0	94.3	66.2
183	United Light & Railways Co	6	500	8,025	8,525	150,800	217,629	.3	2.7	94.6	68.9
194	Waterloo, Cedar Falls & Northern Ry. Co	1	0	7,000	7,000	150,800	224,629	0	2.2	94.6	71.1
3	The American Gas Co	5	345	6,545	6,890	151,145	231,519	.2	2.2	94.8	73.3
266	Des Moines City Ry. Co	1	0	6,750	6,750	151,145	238,269	0	2.1	94.8	75.4
164	Sioux City Service Co	1	0	6,400	6,400	151,145	244,669	0	2.0	94.8	77.4
83	Interstate Power Co	6	2,000	1,625	3,625	153,145	248,294	1.3	1.1	96.1	78.5
38	Continental Gas & Electric Corporation	7	0	3,363	3,363	153,145	251,657	0	1.1	96.1	79.6
19	H. M. Byllesby & Co	1	0	3,350	3,350	153,145	255,007	0	1.1	96.1	80.7
196	Municipal stations	70	710	16,112	16,822	153,855	271,829	.4	5.3	96.5	86.0
	All other stations	145	5,576	38,821	44,397	159,431	316,226	3.5	14.0	100.0	100.0
	Total	268	159,431	156,795	316,226			100.0	100.0		
	Central stations and electric railways, 1912		7,029	126,564	133,593						

[a] Includes stations of Sanitary Drainage District of Chicago and of United States Army.

TABLE 54.—CONCENTRATION OF POWER DEVELOPMENT IN THE SEVERAL STATES SHOWING AMOUNTS OF WATER POWER, STEAM AND GAS POWER, AND OF TOTAL POWER CONTROLLED BY CERTAIN CORPORATIONS AND BY MUNICIPALITIES, IN HORSEPOWER AND IN PER CENT—Continued.

KANSAS.

Reference Nos.	Name of company.	Individual totals.				Cumulative totals.		Individual percentages.		Cumulative percentages.	
		Number of stations.	Water power.	Steam and gas power.	All power.	Water power.	All power.	Water power.	All power.	Water power.	All power.
27	Doherty Operating Co	4	7,000	13,570	20,570	7,000	35,430	0.0	13.5	59.9	32.2
3	American Power & Light Co	5	0	14,860	14,860	7,000	20,570	59.9	18.7	59.9	18.7
50	Illinois Traction Co	2	0	7,491	7,491	7,000	42,921	.0	6.8	59.9	39.0
14	Bowersock Mill & Power Co	1	1,500	1,000	2,500	8,500	45,421	12.8	2.3	72.7	41.3
67	Light & Development Co. of St. Louis	1	0	2,030	2,030	8,500	47,451	.0	1.9	72.7	43.2
103	United Gas & Electric Corporation of Connecticut	1	0	1,925	1,925	8,500	49,376	.0	1.8	72.7	45.0
65	Land & Power Co	1	1,015	840	1,855	9,515	51,231	8.7	1.7	81.4	46.7
109	Municipal stations	90	125	26,232	26,357	9,640	77,588	1.1	24.0	82.5	70.7
	All other stations	102	2,048	30,158	32,206	11,688	109,794	17.5	29.3	100.0	100.0
	Total	207	11,688	98,106	109,794			100.0	100.0		
	Central stations and electric railways, 1912		8,820	101,788	110,608						

KENTUCKY.

105	Louisville Traction Co	2	0	44,130	44,130	None.	44,130	None.	34.5	None.	34.5
6	H. M. Byllesby & Co	1	0	33,330	33,330	None.	77,460	None.	26.1	None.	60.6
13	Columbia Gas & Electric Co. of West Virginia	1	0	9,100	9,100	None.	86,560	None.	7.1	None.	67.7
42	Kentucky Securities Corporation	1	0	6,670	6,670	None.	93,230	None.	5.2	None.	72.9
39	J. G. White & Co	3	0	3,260	3,260	None.	96,490	None.	2.6	None.	75.5
54	Middle West Utilities Co	7	0	3,195	3,195	None.	99,685	None.	2.5	None.	78.0
104	Kentucky Southwestern Electric Railway Light & Power Co	1	0	2,500	2,500	None.	102,185	None.	2.0	None.	80.0
78	Stone & Webster	1	0	2,350	2,350	None.	104,535	None.	1.8	None.	81.0
16	Consolidated Coal Co	1	0	1,500	1,500	None.	106,035	None.	1.2	None.	83.0
52	Mayfield Water & Light Co	1	0	1,200	1,200	None.	107,235	None.	0.9	None.	83.9
47	Light & Development Co. of St. Louis	2	0	1,055	1,055	None.	108,290	None.	0.8	None.	84.7
85	Municipal stations	18	0	7,730	7,730	None.	116,020	None.	6.0	None.	90.7
	All other stations	68	0	11,865	11,865	None.	127,885	None.	9.3	None.	100.0
	Total	107	0	127,885	127,885				100.0		
	Central stations and electric railways, 1912		0	108,227	108,227						

LOUISIANA.

26	United Gas & Electric Corporation of Connecticut	4	0	66,665	66,665	0	66,665	0	73.4	0	73.4
23	Southwestern Gas & Electric Co	1	0	3,450	3,450	0	70,115	0	3.8	0	77.2
58	Shreveport Railways Co	1	0	2,450	2,450	0	72,565	0	2.7	0	79.9
12	Lake Charles Railway, Light & Water Works Co	1	0	2,370	2,370	0	74,935	.0	2.6	0	82.5
25	Stone & Webster	1	0	1,400	1,400	0	76,335	0	1.5	0	84.0
1	Algiers Railway & Lighting Co	1	0	1,000	1,000	0	77,335	0	1.1	0	85.1
33	Municipal stations	25	0	8,061	8,061	0	85,396	0	8.9	0	94.0
	All other stations	26	160	5,284	5,444	160	90,840	100.0	6.0	100.0	100.0
	Total	60	160	90,680	90,840			100.0	100.0		
	Central stations and electric railways, 1912		0	70,910	70,910						

MAINE.

25	E. W. Clark & Co. Management Corporation	16	37,330	18,390	55,720	37,330	55,720	13.4	16.4	13.4	16.4
119	International Paper Co	7	45,750	8,095	53,845	83,080	109,565	16.5	15.9	29.9	32.3
18	Central Maine Power Co	6	20,700	6,700	27,400	103,780	136,965	7.5	8.1	37.4	40.4
132	St. Croix Paper Co	2	25,000	0	25,000	128,780	161,965	9.0	7.4	46.4	47.8
115	Great Northern Paper Co	1	24,500	0	24,500	153,280	186,465	8.8	7.2	55.2	55.0
134	Union Water Power Co	1	18,400	0	18,400	171,680	204,865	6.6	5.4	61.8	60.4
130	Pepperell Manufacturing Co	1	7,000	10,800	17,800	178,680	222,665	2.5	5.2	64.3	65.6
136	S. D. Warren & Co	6	12,200	5,000	17,200	190,880	239,865	4.4	5.1	68.7	70.7
126	Pejepscot Paper Co	4	14,700	1,800	16,500	205,580	256,365	5.3	4.9	74.0	75.6
3	Hollingsworth & Whitney Co	3	15,700	0	15,700	221,280	272,065	5.7	4.6	79.7	80.2
94	Rumford Falls Power Co	1	15,000	0	15,000	236,280	287,065	5.4	4.4	85.1	84.6
63	Maine Railway, Light & Power Co	5	2,686	2,600	5,286	238,966	292,351	1.0	1.6	86.1	86.2
110	Androscoggin Pulp Co	2	3,522	1,100	4,622	242,488	296,973	1.3	1.4	87.4	87.6
1,112	Atlantic Shore Railway Co	3	3,100	1,100	4,200	245,588	301,173	1.1	1.2	88.5	88.8
113	Edwards Manufacturing Co	1	4,000	0	4,000	249,588	305,173	1.4	1.2	89.9	90.0
13	Cabot Manufacturing Co	1	3,300	0	3,300	252,888	308,473	1.2	1.0	91.1	91.0
105	Municipal stations	5	1,996	805	2,801	254,884	311,274	.7	.8	91.8	91.8
	All other stations	77	22,705	5,036	27,741	277,589	339,015	8.2	8.2	100.0	100.0
	Total	142	[a] 277,589	[a] 61,426	[a] 339,015			100.0	100.0		
	Central stations and electric railways, 1912		95,502	34,271	129,773						

[a] Totals include 170,272 water horsepower and 26,595 steam horsepower; total, 196,867 horsepower used in manufactures.

TABLE 54.—CONCENTRATION OF POWER DEVELOPMENT IN THE SEVERAL STATES SHOWING AMOUNTS OF WATER POWER, STEAM AND GAS POWER, AND OF TOTAL POWER CONTROLLED BY CERTAIN CORPORATIONS AND BY MUNICIPALITIES, IN HORSEPOWER AND IN PER CENT—Continued.

MARYLAND AND DISTRICT OF COLUMBIA.

Reference Nos.	Name of company.	Individual totals.				Cumulative totals.		Individual percentages.		Cumulative percentages.	
		Number of stations.	Water power.	Steam and gas power.	All power.	Water power.	All power.	Water power.	All power.	Water power.	All power.
41	United Railways & Electric Co. of Baltimore	4	0	61,875	61,875	0	61,875	0	28.1	0	28.1
8	Consolidated Gas, Electric Light & Power Co. of Baltimore.	7	1,000	56,710	57,710	1,000	119,585	30.4	26.2	30.4	54.3
D.C.-2	Washington Railway & Electric Co	1	0	53,800	53,800	1,000	173,385	0	24.5	30.4	78.8
D.C.-1	Capital Traction Co	1	0	16,870	16,870	1,000	190,255	0	7.7	30.4	86.5
25	Hagerstown & Frederick Electric Ry. Co	2	0	5,905	5,905	1,000	196,160	0	2.7	30.4	89.2
D.C.-4	Washington-Virginia Ry. Co	1	0	4,170	4,170	1,000	200,330	0	1.9	30.4	91.1
53	Baltimore & Ohio R. R. Co	1	0	3,350	3,350	1,000	203,680	0	1.5	30.4	92.6
20	Edison Electric Illuminating Co. of Cumberland	1	0	3,273	3,273	1,000	206,953	0	1.5	30.4	94.1
54	Doherty Operating Co	2	0	1,750	1,750	1,000	208,703	0	0.8	30.4	94.9
46	Municipal stations	7	0	2,533	2,533	1,000	211,236	0	1.1	30.4	96.0
	All other stations	33	2,289	6,522	8,811	3,289	220,047	69.6	4.0	100.0	100.0
	Total	60	3,289	216,758	220,047			100.0	100.0		
	Central stations and electric railways, 1912		3,223	199,645	202,868						

MASSACHUSETTS.

20	Edison Electric Illuminating Co	3	0	140,850	140,850	0	140,850	0	17.5	0	17.5
170	Boston Elevated Ry. Co	6	0	126,300	126,300	0	267,150	0	15.7	0	33.2
195	Massachusetts Electric Companies	13	0	57,575	57,575	0	324,725	0	7.2	0	40.4
63	New England Investment Co	7	0	53,830	53,830	0	378,555	0	6.7	0	47.1
70	New England Power Co. of Maine	4	49,400	0	49,400	49,400	427,955	32.2	6.1	32.2	53.2
107	Turners Falls Power & Electric Co	2	36,900	0	36,900	86,300	464,855	24.0	4.6	56.2	57.8
100	C. H. Tenney & Co	7	681	29,688	30,369	86,981	495,224	.4	3.8	56.6	61.6
115	Worcester Electric Light Co	2	0	21,330	21,330	86,981	516,554	0	2.7	56.6	64.3
92	Stone & Webster	7	0	20,630	20,630	86,981	537,184	0	2.6	56.6	66.9
110	United Electric Light Co	3	4,500	15,000	19,500	91,481	556,684	2.9	2.4	59.5	69.3
37	Ludlow Manufacturing Association	3	9,900	8,200	18,100	101,381	574,784	6.5	2.2	66.0	71.5
23	Fall River Electric Co	1	0	17,330	17,330	101,381	592,114	0	2.2	66.0	73.7
212	New York, New Haven & Hartford R. R. Co	2	0	15,225	15,225	101,381	607,339	0	1.9	66.0	75.6
61	New Bedford Gas & Electric Co	1	0	13,330	13,330	101,381	620,669	0	1.7	66.0	77.3
219	Proprietors of locks and canals	1	11,262	0	11,262	112,643	631,931	7.3	1.4	73.3	78.7
167	Bliss Fabyan Co	3	5,194	5,850	11,044	117,837	642,975	3.4	1.4	76.7	80.1
76	C. D. Parker & Co. (Inc.)	8	1,650	8,735	10,385	119,487	653,360	1.1	1.3	77.8	81.4
11	Cambridge Electric Light Co	1	0	8,670	8,670	119,487	662,030	0	1.1	77.8	82.5
45	Massachusetts Lighting Companies	11	0	8,485	8,485	119,487	670,515	0	1.0	77.8	83.5
117	Municipal stations	33	1,270	32,553	33,823	120,757	704,338	.8	4.2	78.6	87.7
	All other stations	108	32,928	65,725	98,653	153,685	802,991	21.4	12.3	100.0	100.0
	Total	226	[a] 153,685	[a] 649,306	[a] 802,991			100.0	100.0		
	Central stations and electric railways, 1912		26,189	597,387	623,576						

MICHIGAN.

132	The North American Co	12	5,133	176,572	181,705	5,133	181,705	2.4	30.2	2.4	30.2
33	Commonwealth Power, Railway & Light Co	38	70,813	66,610	137,423	75,946	319,128	33.2	22.8	35.6	53.0
290	Detroit United Rys	9	0	46,986	46,986	75,946	366,114	0	7.8	35.6	60.8
174	Union Carbide Co	1	30,800	0	30,800	106,746	396,914	14.4	5.1	50.0	65.9
103	Indiana & Michigan Electric Co	2	9,400	0	9,400	116,146	406,314	4.4	1.6	54.4	67.5
29	Cleveland Cliffs Iron Co	3	8,000	0	8,000	124,146	414,314	3.8	1.3	58.2	68.8
301	Ostego Water Power Co	1	3,000	5,000	8,000	127,146	422,314	1.4	1.3	59.6	70.1
287	Cambria Steel Co	2	5,000	2,000	7,000	132,146	429,314	2.4	1.2	62.0	71.3
118	Menominee & Marinette Light & Traction Co	2	5,700	1,100	6,800	137,846	436,114	2.7	1.1	64.7	72.4
120	Michigan Power Co	2	2,000	4,670	6,670	139,846	442,784	.9	1.1	65.6	73.5
150	Peninsular Power Co	2	5,250	833	6,083	145,096	448,867	2.5	1.0	68.1	74.5
165,302	Stone & Webster	2	0	5,750	5,750	145,096	454,617	0	.9	68.1	75.4
79	Escanaba Traction Co	3	4,520	700	5,220	149,616	459,837	2.1	.9	70.2	76.3
303	Victoria Copper Mining Co	1	4,000	0	4,000	153,616	463,837	1.9	.7	72.1	77.0
144	Oak Park Power Co	1	0	4,000	4,000	153,616	467,837	0	.7	72.1	77.7
108	Ironwood & Bessemer Railway & Light Co	1	2,600	1,300	3,900	156,216	471,737	1.2	.6	73.3	78.3
289	Carnegie Steel Co	1	3,850	0	3,850	160,066	475,587	1.8	.6	75.1	78.9
122	Middle West Utilities Co	4	2,286	320	3,606	162,352	479,193	1.1	.6	76.2	79.5
183	Municipal stations	104	10,972	42,179	53,151	173,324	532,344	5.1	8.8	81.3	88.3
	All other stations	112	39,787	30,531	70,318	213,111	602,662	18.7	11.7	100.0	100.0
	Total	303	[b] 213,111	[b] 389,551	[b] 602,662			100.0	100.0		
	Central stations and electric railways, 1912		134,454	311,008	445,462						

[a] Totals include 32,348 water horsepower and 9,597 steam horsepower; total, 41,945 horsepower used in manufactures.
[b] Totals contain 15,850 water horsepower and 7,000 steam horsepower; total, 22,850 horsepower used in manufactures.

TABLE 54.—CONCENTRATION OF POWER DEVELOPMENT IN THE SEVERAL STATES SHOWING AMOUNTS OF WATER POWER, STEAM AND GAS POWER, AND OF TOTAL POWER CONTROLLED BY CERTAIN CORPORATIONS AND BY MUNICIPALITIES, IN HORSEPOWER AND IN PER CENT—Continued.

MINNESOTA.

Reference Nos.	Name of company.	Individual totals.				Cumulative totals.		Individual percentages.		Cumulative percentages.	
		Number of stations.	Water power.	Steam and gas power.	All power.	Water power.	All power.	Water power.	All power.	Water power.	All power.
96	Twin City Rapid Transit Co	3	0	66,700	66,700	0	66,700	0	17.0	0	17.0
68	Northwestern Power Co	2	57,000	4,670	61,670	57,000	128,370	24.9	15.7	24.9	32.7
10	H. M. Byllesby & Co	10	43,450	18,500	61,950	100,450	190,320	18.9	15.8	43.8	48.5
81	Pillsbury-Washburn Flour Mills Co	2	57,500	0	57,500	157,950	247,820	25.1	14.6	68.9	63.1
254	Minnesota & Ontario Power Co	1	12,500	10,000	22,500	170,450	270,320	5.4	5.8	74.3	68.9
1	American Light & Traction Co	1	7,800	9,000	16,800	178,250	287,120	3.5	4.3	77.8	73.2
258	Northwest Paper Co	3	8,527	0	8,527	186,777	295,647	3.7	2.1	81.5	75.3
32	Crookston Waterworks, Power & Light Co	1	4,000	1,600	5,600	190,777	301,247	1.7	1.5	83.2	76.8
242	Itaska Paper Co	1	3,500	950	4,450	194,277	305,697	1.5	1.1	84.7	77.9
33	Cuyuna Range Power Co	3	3,200	1,150	4,350	197,477	310,047	1.4	1.1	86.1	79.0
74	Otter Tail Power Co	6	3,080	1,015	4,095	200,577	314,142	1.4	1.1	87.5	80.1
87	Public Service Co. of St. Cloud	1	3,000	1,000	4,000	203,557	318,142	1.3	1.0	88.8	81.1
105	Municipal stations	115	1,399	22,199	23,598	204,956	341,740	0.6	6.0	89.4	87.1
	All other stations	139	24,302	26,439	50,741	229,258	392,481	10.6	12.9	100.0	100.0
	Total	288	[a] 229,258	[a] 163,223	[a] 392,481			100.0	100.0		
	Central stations and electric railways, 1912		102,172	159,522	261,694						

MISSISSIPPI.

14	Gulfport & Mississippi Coast Traction Co	1	None.	6,000	6,000	None.	6,000	None.	14.1	None.	14.1
11	Doherty Operating Co	2	None.	5,295	5,295	None.	11,295	None.	12.5	None.	26.6
2	American Public Utilities Co	1	None.	4,000	4,000	None.	15,295	None.	9.4	None.	36.0
17	Laurel Light & Railway Co	1	None.	2,120	2,120	None.	17,415	None.	5.0	None.	41.0
10	Delta Light & Traction Co	1	None.	1,730	1,730	None.	19,145	None.	4.1	None.	45.1
33	Vicksburg Light & Traction Co	1	None.	1,650	1,650	None.	20,795	None.	3.9	None.	49.0
20	McComb City Electric Light & Traction Co	1	None.	1,400	1,400	None.	22,195	None.	3.3	None.	52.3
32	United Public Utilities Co	1	None.	1,100	1,100	None.	23,295	None.	2.6	None.	54.9
7	Columbia Railway, Light & Power Co	1	None.	1,000	1,000	None.	24,295	None.	2.3	None.	57.2
5	Capital Light & Power Co	1	None.	800	800	None.	25,095	None.	1.9	None.	59.1
37	Municipal stations	42	None.	10,623	10,623	None.	35,718	None.	25.0	None.	84.1
	All other stations	25	None.	6,785	6,785	None.	42,503	None.	15.9	None.	100.0
	Total	78	None.	42,503	42,503	None.		None.	100.0	None.	
	Central stations and electric railways, 1912		None.	40,347	40,347						

MISSOURI.

103,203	North American Co	9	0	131,450	131,450	0	131,450	0	40.2	0	40.2
26	Doherty Operating Co	6	20,400	49,838	70,238	20,400	201,688	98.7	21.5	98.7	61.7
54	Kansas City Railway & Light Co	1	0	53,300	53,300	20,400	254,988	0	16.3	98.7	78.0
62	The Laclede Gas Light Co	1	0	10,000	10,000	20,400	264,988	0	3.1	98.7	81.1
69	Light & Development Co. of St. Louis	7	0	4,810	4,810	20,400	269,798	0	1.5	98.7	82.6
39	Federal Light & Traction Co	1	0	4,040	4,040	20,400	273,838	0	1.2	98.7	83.8
208	Southern Missouri Railway Co	1	0	3,000	3,000	20,400	276,838	0	.9	98.7	84.7
89	Middle West Utilities Co	7	0	2,805	2,805	20,400	279,643	0	.8	98.7	85.5
201	Joplin & Pittsburg Railway Co	1	0	2,550	2,550	20,400	282,193	0	.8	98.7	86.3
135	Municipal stations	65	0	19,501	19,501	20,400	301,694	0	6.0	98.7	92.3
	All other stations	109	270	25,106	25,376	20,670	327,070	1.3	7.7	100.0	100.0
	Total	208	20,670	306,400	327,070			100.0	100.0		
	Central stations and electric railways, 1912		1,902	306,133	308,035						

MONTANA.

23	Montana Power Co	19	179,700	8,300	188,000	179,700	188,000	88.6	79.8	88.6	79.8
1,57	Amalgamated Copper Co	3	11,830	9,000	20,830	191,530	208,830	5.8	8.9	94.4	88.7
8	Clark-Missoula Power Co	1	3,200	1,067	4,267	194,730	213,097	1.6	1.8	96.0	90.5
5	H. M. Byllesby & Co	2	2,820	250	3,070	197,550	216,167	1.4	1.3	97.4	91.8
55	Municipal stations	2	0	1,005	1,005	197,550	217,172	0	.4	97.4	92.2
	All other stations	38	5,345	13,071	18,416	202,895	235,588	2.6	7.8	100.0	100.0
	Total	65	202,895	32,693	235,588			100.0	100.0		
	Central-stations and electric railways, 1912		103,655	13,575	117,230						

NEBRASKA.

86	Omaha Electric Light & Power Co	1	0	24,000	24,000	0	24,000	0	24.3	0	24.3
196	Omaha & Council Bluffs Street Railway Co	1	0	23,375	23,375	0	47,375	0	23.7	0	48.0
75	Lincoln Traction Co	1	0	5,100	5,100	0	52,475	0	5.2	0	53.2
35	Doherty Operating Co	2	0	2,700	2,700	0	55,175	0	2.7	0	55.9
70	Kearney Water & Electric Power Co	1	1,350	1,350	2,700	1,350	57,875	12.5	2.7	12.5	58.6
21	Continental Gas & Electric Corporation	6	0	2,595	2,595	1,350	60,470	0	2.6	12.5	61.2
111	Union Company of Omaha	1	0	1,450	1,450	1,350	61,920	0	1.5	12.5	62.7
11	Blue River Power Co	1	700	600	1,300	2,050	63,220	6.5	1.3	19.0	64.0
49	Grand Island Electric Co	1	0	1,033	1,033	2,050	64,253	0	1.1	19.0	65.1
48	Gothenburg Light & Power Co	1	500	400	900	2,550	65,153	4.6	.9	23.6	66.0
121	Municipal stations	73	5,050	14,414	19,464	7,600	84,617	46.8	19.7	70.4	85.7
	All other stations	107	3,199	10,902	14,101	10,799	98,718	29.6	14.3	100.0	100.0
	Total	196	10,799	87,919	98,718			100.0	100.0		
	Central stations and electric railways, 1912		5,884	65,409	71,293						

[a] These totals include 39,364 water horsepower and 14,867 steam horsepower; total, 54,231 horsepower, used in manufactures.

TABLE 54.—CONCENTRATION OF POWER DEVELOPMENT IN THE SEVERAL STATES SHOWING AMOUNTS OF WATER POWER, STEAM AND GAS POWER, AND OF TOTAL POWER CONTROLLED BY CERTAIN CORPORATIONS AND BY MUNICIPALITIES, IN HORSEPOWER AND IN PER CENT—Continued.

NEVADA.

Reference Nos.	Name of company.	Individual totals.				Cumulative totals.		Individual percentages.		Cumulative percentages.	
		Number of stations.	Water power.	Steam and gas power.	All power.	Water power.	All power.	Water power.	All power.	Water power.	All power.
10	Stone & Webster	3	9,800	0	9,800	9,800	9,800	73.6	37.1	73.6	37.1
19	Utah Copper Co	1	0	9,775	9,775	9,800	19,575	0	37.0	73.6	74.1
14	United States Reclamation Service	1	2,490	0	2,490	12,290	22,065	18.7	9.4	92.3	83.5
5	Ely Light & Power Co	2	160	1,400	1,560	12,450	23,625	1.2	5.9	93.5	89.4
4	Elko Lamoille Power Co	2	415	300	715	12,865	24,340	3.1	2.7	96.6	92.1
17	Municipal stations	1	0	0	0	12,865	24,340	0	0	96.6	92.1
	All other stations	9	455	1,644	2,099	13,320	26,439	3.4	7.9	100.0	100.0
	Total	19	13,320	13,119	26,439			100.0	100.0		
	Central stations and electric railways, 1912		12,540	2,880	15,420						

NEW HAMPSHIRE.

70	Berlin Mills Co	2	31,700	0	31,700	31,700	31,700	29.2	21.2	29.2	21.2
4	Amoskeag Manufacturing Co	1	22,445	0	22,445	54,145	54,145	20.7	15.0	49.9	36.2
73	International Paper Co	2	15,300	2,350	17,650	69,445	71,795	14.1	11.8	64.0	48.0
40	Manchester Traction, Light & Power Co	2	5,990	6,000	11,900	75,345	83,695	5.4	8.0	69.4	56.0
49	New Hampshire Electric Rys. Co	1	0	10,670	10,670	75,345	94,365	0	7.1	69.4	63.1
76	Pacific Mills	2	1,500	5,060	6,560	76,845	100,925	1.4	4.4	70.8	67.5
27	J. E. Henry & Sons Co	1	1,800	2,800	4,600	78,645	105,525	1.7	3.1	72.5	70.6
75	Nashua Manufacturing Co	1	4,500	0	4,500	83,145	110,025	4.1	3.0	76.6	73.6
45	Middle West Utilities Co	2	1,600	2,000	3,600	84,745	113,625	1.5	2.4	78.1	76.0
9	Boston & Maine R. R. Co	3	2,190	1,050	3,240	86,935	116,865	2.0	2.2	80.1	78.2
15	Concord Electric Co	1	2,000	1,000	3,000	88,935	119,865	1.8	2.0	81.9	80.2
72	Great Falls Manufacturing Co	1	3,000	0	3,000	91,935	122,865	2.8	2.0	84.7	82.2
78	Suncook Mills	1	3,000	0	3,000	94,935	125,865	2.8	2.0	87.5	84.2
6	W. S. Barstow & Co. (Inc.)	1	600	1,900	2,500	95,535	128,365	.6	1.7	88.1	85.9
68	Municipal stations	2	600	545	1,145	96,135	129,510	.6	.8	88.7	86.7
	All other stations	55	12,280	7,645	19,925	108,415	149,435	11.3	13.3	100.0	100.0
	Total	78	[a] 108,415	[a] 41,020	[a] 149,435			100.0	100.0		
	Central stations and electric railways, 1912		59,119	29,211	88,330						

NEW JERSEY.

47	Public Service Corporation of New Jersey	16	0	232,905	232,905	0	232,905	0	68.6	0	68.6
1	American Gas & Electric Co	2	0	17,675	17,675	0	250,580	0	5.2	0	73.8
44	Pennsylvania Railroad Co	1	0	10,670	10,670	0	261,250	0	3.1	0	76.9
38	New Jersey General Security Co	3	7,200	0	7,200	7,200	268,450	72.4	2.1	72.4	79.0
30	Jersey Central Traction Co	1	0	6,400	6,400	7,200	274,850	0	1.9	72.4	80.9
9	W. S. Barstow & Co. (Inc.)	4	1,500	3,630	5,130	8,700	279,980	15.1	1.5	87.5	82.4
2	American Light & Traction Co	1	0	3,950	3,950	8,700	283,930	0	1.2	87.5	83.6
4	American Rys. Co	1	0	2,725	2,725	8,700	286,655	0	.8	87.5	84.4
20	Commonwealth Water & Light Co	2	100	2,450	2,550	8,800	289,205	1.0	.7	88.5	85.1
66	Sayreville Electric Light & Power Co	1	0	2,500	2,500	8,800	291,705	0	.7	88.5	85.8
82	Municipal stations	10	112	2,885	2,997	8,912	294,702	1.1	.9	89.6	86.7
	All other stations	60	1,035	43,845	44,880	9,947	339,582	10.4	13.3	100.0	100.0
	Total	102	9,947	329,635	339,582			100.0	100.0		
	Central stations and electric railways, 1912		1,569	267,043	268,612						

NEW MEXICO.

6	Federal Light & Traction Co	3	0	5,158	5,158	0	5,158	0	37.1	0	37.1
18	Roswell Gas & Electric Co	1	0	1,650	1,650	0	6,808	0	11.9	0	49.0
19	Santa Fe Water & Electric Co	1	102	445	547	102	7,355	18.5	4.0	18.5	53.0
20	Silver City Power Co	1	0	460	460	102	7,815	0	3.3	18.5	56.3
17	Raton Electric Light & Power Co	1	0	425	425	102	8,240	0	3.1	18.5	59.4
16	Public Utilities Co	1	350	0	350	452	8,590	63.4	2.5	81.9	61.9
14	Peoples Light & Power Co	1	0	350	350	452	8,940	0	2.5	81.9	64.4
25	Tucumcari Light & Power Co	1	0	350	350	452	9,290	0	2.5	81.9	66.9
26,27	United States Reclamation Service and municipal stations	4	0	3,185	3,185	452	12,475	0	22.9	81.9	89.8
	All other stations	16	100	1,322	1,422	552	13,897	18.1	10.2	100.0	100.0
	Total	30	552	13,345	13,897			100.0	100.0		
	Central stations and electric railways, 1912		817	10,198	11,015						

[a] Totals include 59,000 water horsepower and 7,410 steam horsepower, total 66,410 horsepower, used in manufacturing.

TABLE 54.—CONCENTRATION OF POWER DEVELOPMENT IN THE SEVERAL STATES SHOWING AMOUNTS OF WATER POWER, STEAM AND GAS POWER, AND OF TOTAL POWER CONTROLLED BY CERTAIN CORPORATIONS AND BY MUNICIPALITIES, IN HORSEPOWER AND IN PER CENT—Continued.

NEW YORK.

Reference Nos.	Name of company.	Individual totals.				Cumulative totals.		Individual percentages.		Cumulative percentages.	
		Number of stations.	Water power.	Steam and gas power.	All power.	Water power.	All power.	Water power.	All power.	Water power.	All power.
28	Consolidated Gas Co. of New York	8	0	481,895	481,895	0	481,895	0	21.2	0	21.2
388	Interborough Metropolitan Co	2	0	246,500	246,500	0	728,395	0	10.8	0	32.0
371	Brooklyn Rapid Transit Co	5	0	198,025	198,025	0	926,420	0	8.7	0	40.7
66	Hydraulic Power Co. of Niagara Falls	3	153,000	0	153,000	153,000	1,079,420	19.1	6.7	19.1	47.4
102	The Niagara Falls Power Co	2	115,000	0	115,000	268,000	1,194,420	14.4	5.1	33.5	52.5
97,408	New York Central & Hudson River R. R. Co	4	22,325	70,800	93,125	290,325	1,287,545	2.8	4.1	36.3	56.6
391	International Paper Co	10	75,180	17,025	92,205	365,505	1,379,750	9.4	4.1	45.7	60.7
411	Pennsylvania R. R. Co	1	0	74,700	74,700	365,505	1,454,450	0	3.3	45.7	64.0
72	Kings County Electric Light & Power Co	3	0	74,670	74,670	365,505	1,529,120	0	3.3	45.7	67.3
145	Stone & Webster	4	45,800	9,000	54,800	411,305	1,583,920	5.7	2.4	51.4	69.7
5	Aluminum Co. of America	2	40,000	0	40,000	451,305	1,623,920	5.0	1.8	56.4	71.5
104	Niagara, Lockport & Ontario Power Co	1	40,000	0	40,000	491,305	1,663,920	5.0	1.8	61.4	73.3
53	General Electric Co	3	31,000	0	31,000	522,305	1,694,920	3.9	1.4	65.3	74.7
25	Cohoes Co	1	30,000	0	30,000	552,305	1,724,920	3.7	1.3	69.0	76.0
387	Hudson & Manhattan R. R. Co	1	0	24,000	24,000	552,305	1,748,920	0	1.1	69.0	77.1
164	Utica Gas & Electric Co	5	11,800	11,000	22,800	564,105	1,771,720	1.5	1.0	70.5	78.1
418	St. Regis Paper Co	5	19,800	2,590	22,390	583,905	1,794,110	2.5	1.0	73.0	79.1
158	United Gas & Electric Corporation of Connecticut	2	500	18,440	18,940	584,405	1,813,050	.1	.8	73.1	79.9
432	West Virginia Pulp & Paper Co	1	9,550	8,800	18,350	593,955	1,831,400	1.2	.8	74.3	80.7
160	United Gas Improvement Co	3	350	15,720	16,070	594,305	1,847,470	0	.7	74.3	81.4
319	Municipal stations	48	3,155	10,721	13,876	597,460	1,861,346	.4	.6	74.7	82.0
	All other stations	335	202,070	207,464	409,534	799,530	2,270,880	25.3	18.0	100.0	100.0
	Total	449	[a] 799,530	[a] 1,471,350	[a] 2,270,880			100.0	100.0		
	Central stations and electric railways, 1912		530,921	1,282,608	1,813,529						

NORTH CAROLINA.

61	Southern Power Co	4	30,000	38,010	68,010	30,000	68,010	30.3	37.6	30.3	37.6
8	Carolina Power & Light Co	9	44,400	7,725	52,125	74,400	120,135	44.8	28.9	75.1	66.5
46	North Carolina Electrical Power Co	3	7,530	0	7,530	81,930	127,665	7.6	4.2	82.7	70.7
66	Southern Public Utilities Co	2	2,100	3,350	5,450	84,030	133,115	2.1	3.0	84.8	73.7
71	Tidewater Power Co	1	0	5,000	5,000	84,030	138,115	0	2.8	84.8	76.5
53	J. A. Roper Lumber Co	3	0	4,300	4,300	84,030	142,415	0	2.4	84.8	78.9
131	Roanoke Rapids Power Co	1	4,100	0	4,100	88,130	146,515	4.1	2.3	88.9	81.2
127	Erwin Cotton Mills Co	1	2,037	1,240	3,277	90,167	149,792	2.1	1.8	91.0	83.0
51	Piedmont Railway & Electric Co	1	0	2,500	2,500	90,167	152,292	0	1.4	91.0	84.4
49	North Carolina Public Service Co	2	0	2,480	2,480	90,167	154,772	0	1.4	91.0	85.8
24	Doherty Operating Co	1	0	2,200	2,200	90,167	156,972	0	1.2	91.0	87.0
35	Haywood Electric Power Co	1	1,950	0	1,950	92,117	158,922	2.0	1.1	93.0	88.1
69	Spencer Mountain Mills	1	1,000	0	1,000	93,117	159,922	1.0	.5	94.0	88.6
28	Electric Light Co. of Elizabeth City	1	0	1,000	1,000	93,117	160,922	0	.5	94.0	89.1
77	Municipal stations	49	1,035	8,923	9,958	94,152	170,880	1.0	5.5	95.0	94.6
	All other stations	51	4,953	4,793	9,746	99,105	180,626	5.0	5.4	100.0	100.0
	Total	131	[b] 99,105	[b] 81,521	[b] 180,626			100.0	100.0		
	Central stations and electric railways, 1912		60,151	33,562	93,713						

NORTH DAKOTA.

2	H. M. Byllesby & Co	3	0	6,950	6,950	0	6,950	0	36.7	0	36.7
18	Hughes Electric Co	1	0	1,200	1,200	0	8,150	0	6.3	0	43.0
32	Otter Tail Power Co	2	0	600	600	0	8,750	0	3.2	0	46.2
37,44	United States Reclamation Service and municipal stations	12	0	4,212	4,212	0	12,962	0	22.3	0	68.5
	All other stations	62	80	5,883	5,963	80	18,925	100.0	31.5	100.0	100.0
	Total	80	80	18,845	18,925			100.0	100.0		
	Central stations and electric railways, 1912		0	16,249	16,249						

[a] Totals contain 181,238 water horsepower and 34,026 steam horsepower, total 215,264 horsepower, used in manufactures.
[b] These totals contain 6,887 water horsepower and 1,365 steam horsepower, total 8,252 horsepower, used in manufacturing.

TABLE 54.—CONCENTRATION OF POWER DEVELOPMENT IN THE SEVERAL STATES SHOWING AMOUNTS OF WATER POWER, STEAM AND GAS POWER, AND OF TOTAL POWER CONTROLLED BY CERTAIN CORPORATIONS AND BY MUNICIPALITIES, IN HORSEPOWER AND IN PER CENT—Continued.

OHIO.

Reference Nos.	Name of company.	Individual totals.				Cumulative totals.		Individual percentages.		Cumulative percentages.	
		Number of stations.	Water power.	Steam and gas power.	All power.	Water power.	All power.	Water power.	All power.	Water power.	All power.
47	Central States Electric Corporation	1	0	135,700	135,700	0	135,700	0	18.1	0	18.1
387	Ohio Traction Co	6	0	65,611	65,611	0	201,311	0	8.7	0	26.8
88	Doherty Operating Co	11	1,700	63,735	65,435	1,700	266,746	8.5	8.7	8.5	35.5
62	Columbia Gas & Electric Co	1	0	38,930	38,930	1,700	305,676	0	5.2	8.5	40.7
68	Columbus Railway, Power & Light Co	6	0	34,670	34,670	1,700	340,346	0	4.6	8.5	45.3
182	Northern Ohio Traction & Light Co	2	2,270	31,000	33,270	3,970	373,616	11.4	4.4	19.9	49.7
184	Ohio Electric Ry. Co	6	700	27,800	28,500	4,670	402,116	3.5	3.8	23.4	53.5
37	Cleveland Ry. Co	2	0	27,100	27,100	4,670	429,216	0	3.6	23.4	57.1
4	American Gas & Electric Co	11	0	25,405	25,405	4,670	454,621	0	3.4	23.4	60.5
78	Dayton Power & Light Co	6	100	20,120	20,220	4,770	474,841	.5	2.7	23.9	63.2
203	Republic Railway & Light Co	2	0	16,330	16,330	4,770	491,171	0	2.2	23.9	65.4
58	Cleveland, Southwestern & Columbus Ry. Co	3	0	14,750	14,750	4,770	505,921	0	2.0	23.9	67.4
103	East Liverpool Traction & Light Co	3	330	14,100	14,430	5,100	520,351	1.6	1.9	25.5	69.3
238	United Service Co	5	1,630	10,190	11,820	6,730	532,171	8.2	1.6	33.7	70.9
249	Western Ohio R. R. Co	1	0	11,330	11,330	6,730	543,501	0	1.5	33.7	72.4
147	Lake Shore Electric Ry. Co	1	0	11,000	11,000	6,730	554,501	0	1.5	33.7	73.9
64	Columbus, Delaware & Marion Ry. Co	4	0	9,660	9,660	6,730	564,161	0	1.3	33.7	75.2
28	W. S. Barstow & Co	3	0	6,890	6,890	6,730	571,051	0	.9	33.7	76.1
24	Auglaize Power Co	1	6,666	0	6,666	13,396	577,717	33.4	.9	67.1	77.0
74	Commonwealth Power, Railway & Light Co	1	0	6,000	6,000	13,396	583,717	0	.8	67.1	77.8
260	Municipal stations	114	175	55,759	55,934	13,571	639,651	.9	7.5	68.0	85.3
	All other stations	205	6,377	103,709	110,086	19,948	749,737	32.0	14.7	100.0	100.0
	Total	395	19,948	729,789	749,737			100.0	100.0		
	Central stations and electric railways, 1912		10,690	659,657	670,347						

OKLAHOMA.

9	H. M. Byllesby & Co	5	0	17,215	17,215	0	17,215	0	24.4	0	24.4
48	Middle West Utilities Co	7	1,200	9,490	10,690	1,200	27,905	68.2	15.2	68.2	39.6
138	Oklahoma Railway Co	1	0	5,980	5,980	1,200	33,885	0	8.5	68.2	48.1
3	American Public Service Co	2	0	2,125	2,125	1,200	36,010	0	3.0	68.2	51.1
18	Choctaw Railway & Lighting Co	1	0	1,650	1,650	1,200	37,660	0	2.3	68.2	53.4
64	Southwestern Cities Electric Co	3	0	1,560	1,560	1,200	39,220	0	2.2	68.2	55.6
6	Ardmore Ice, Light & Power Co	1	0	1,525	1,525	1,200	40,745	0	2.2	68.2	57.8
63	Shawnee Gas & Electric Co	1	0	1,450	1,450	1,200	42,195	0	2.1	68.2	59.9
24	Doherty Operating Co	1	0	1,420	1,420	1,200	43,615	0	2.0	68.2	61.9
75	Municipal stations	61	358	11,428	11,786	1,558	55,401	20.4	16.7	88.6	78.6
	All other stations	56	200	14,908	15,108	1,758	70,509	11.4	21.4	100.0	100.0
	Total	139	1,758	68,751	70,509			100.0	100.0		
	Central stations and electric railways, 1912		2,135	61,462	63,597						

OREGON.

53	E. W. Clark & Co. Mortgage Corporation	11	80,000	35,875	115,875	80,000	115,875	51.0	52.3	51.0	52.3
94	Crown-Willamette Paper Co	3	26,124	3,500	29,624	106,124	145,499	16.7	13.4	67.7	65.7
14	California-Oregon Power Co	5	11,100	0	11,100	117,224	156,599	7.1	5.0	74.8	70.7
1	American Power & Light Co	5	9,090	1,650	10,740	126,314	167,339	5.8	4.8	80.6	75.5
9	H. M. Byllesby & Co	6	520	6,227	6,747	128,834	174,086	.3	3.0	80.9	78.5
49	National Securities Corporation	1	5,000	0	5,000	131,834	179,086	3.2	2.3	84.1	80.8
31	Eastern Oregon Light & Power Co	5	3,700	0	3,700	135,534	182,786	2.3	1.7	86.4	82.5
81	Municipal stations	12	4,046	242	4,888	140,180	187,674	3.0	2.2	89.4	84.7
	All other stations	53	16,583	17,447	34,030	156,763	221,704	10.6	15.3	100.0	100.0
	Total	101	156,763	64,941	221,704			100.0	100.0		
	Central stations and electric railways, 1912		105,302	50,163	155,465						

PENNSYLVANIA.

88	The Philadelphia Co	10	0	161,508	161,508	0	161,508	0	16.2	0	16.2
85	Pennsylvania Water & Power Co	2	118,000	0	118,000	118,000	279,508	70.0	11.9	70.0	28.1
305	Philadelphia Rapid Transit Co	5	0	105,730	105,730	118,000	385,238	0	10.6	70.0	38.7
60	Lehigh Coal & Navigation Co	4	5,367	70,500	75,867	123,367	461,105	3.2	7.6	73.2	46.3
8	American Water Works & Electric Co	11	0	49,545	49,545	123,367	510,650	0	5.0	73.2	51.3
19	W. S. Barstow & Co (Inc.)	10	2,400	46,800	49,200	125,767	559,850	1.4	5.0	74.6	56.3
6	American Gas & Electric Co	1	0	35,800	35,800	125,767	595,650	0	3.6	74.6	59.9
116	United Gas & Electric Corporation of Connecticut	3	0	22,950	22,950	125,767	618,600	0	2.3	74.6	62.2
134	York Haven Water & Power Co	1	20,000	0	20,000	145,767	638,600	11.9	2.0	86.5	64.2
64	Lehigh Valley Transit Co	3	0	18,330	18,330	145,767	656,930	0	1.8	86.5	66.0
75	Penn Central Light & Power Co	6	2,000	16,220	18,220	147,767	675,150	1.2	1.8	87.7	67.8
126	H. D. Walbridge & Co	2	250	14,250	14,500	148,017	689,650	.2	1.5	87.9	69.3
98	Philadelphia Electric Co	2	0	13,920	13,920	148,017	703,570	0	1.4	87.9	70.7
49	Erie County Electric Co	1	0	11,770	11,770	148,017	715,340	0	1.2	87.9	71.9
1	American Gas Co	5	500	10,800	11,300	148,517	726,640	.3	1.1	88.2	73.0
259	Municipal stations	41	538	15,549	16,087	149,055	742,727	.3	1.6	88.5	74.6
	All other stations	243	19,478	232,856	252,334	168,533	995,061	11.5	25.4	100.0	100.0
	Total	350	168,533	826,528	995,061			100.0	100.0		
	Central stations and electric railways, 1912		133,018	775,861	908,879						

TABLE 54.—CONCENTRATION OF POWER DEVELOPMENT IN THE SEVERAL STATES SHOWING AMOUNTS OF WATER POWER, STEAM AND GAS POWER, AND OF TOTAL POWER CONTROLLED BY CERTAIN CORPORATIONS AND BY MUNICIPALITIES, IN HORSEPOWER AND IN PER CENT—Continued.

RHODE ISLAND.

Reference Nos.	Name of company.	Individual totals.			Cumulative totals.		Individual percentages.		Cumulative percentages.	
		Number of stations.	Water power.	Steam and gas power.	All power.	Water power.	All power.	Water power.	All power.	Water power.	All power.
6	New York, New Haven & Hartford R. R. Co.	1	0	46,000	46,000	0	46,000	0	48.5	0	48.5
3	Narragansett Electric Lighting Co	3	0	28,260	28,260	0	74,260	0	29.8	0	78.3
1	Massachusetts Lighting Cos	2	0	9,800	9,800	0	84,060	0	10.4	0	88.7
7	Stone & Webster	3	2,485	6,650	9,135	2,485	93,195	100.0	9.6	100.0	98.3
12	Municipal stations	1	0	0	0	2,485	93,195	0	0	100.0	98.3
	All other stations	2	0	1,625	1,625	2,485	94,820	0	1.7	100.0	100.0
	Total	12	2,485	92,335	94,820			100.0	100.0		
	Central stations and electric railways, 1912		2,440	92,909	95,349						

SOUTH CAROLINA.

34	Southern Power Co	5	127,850	9,000	136,850	127,850	136,850	56.3	50.0	56.3	50.0
12	Columbia Railway, Gas & Electric Co	2	26,000	7,330	33,330	153,850	170,180	11.5	12.2	67.8	62.2
39	Southern Public Utilities Co	5	16,300	1,850	18,150	170,150	188,330	7.2	6.6	75.0	68.8
32	South Carolina Light, Power & Railways Co	2	12,000	4,000	16,000	182,150	204,330	5.3	5.9	80.3	74.7
74	Pelzer Manufacturing Co	1	6,500	4,500	11,000	188,650	215,330	2.9	4.0	83.2	78.7
45	Union Manufacturing & Power Co	1	8,000	0	8,000	196,650	223,330	3.5	2.9	86.7	81.6
46	United Gas Improvement Co	1	0	6,670	6,670	196,650	230,000	0	2.4	86.7	84.0
48	Ware Shoals Manufacturing Co	1	5,000	0	5,000	201,650	235,000	2.2	1.8	88.9	85.8
75	Tucapau Mills	1	5,000	0	5,000	206,650	240,000	2.2	1.8	91.1	97.6
1	Belton Power Co	1	4,650	0	4,650	211,300	244,650	2.0	1.7	93.1	89.3
72	Lockhart Mills	1	2,800	0	2,800	214,100	247,450	1.2	1.0	94.3	90.3
73	Pacolet Manufacturing Co	1	2,800	0	2,800	216,900	250,250	1.2	1.0	95.5	91.3
70	Clifton Manufacturing Co	1	2,000	750	2,750	218,900	253,000	.9	1.0	96.4	92.3
49	Municipal stations	21	0	4,625	4,625	218,900	257,625	0	1.7	96.4	94.0
	All other stations	22	8,112	8,300	16,412	227,012	274,037	3.6	6.0	100.0	100.0
	Total	76	[a] 227,012	[a] 47,025	[a] 274,037			100.0	100.0		
	Central stations and electric railways, 1912		178,555	52,051	230,606						

SOUTH DAKOTA.

40	Homestake Mining Co	2	6,225	175	6,400	6,225	6,400	47.8	13.5	47.8	13.5
8	H. M. Byllesby & Co	3	2,065	3,740	5,805	8,290	12,205	15.8	12.2	63.6	25.7
17	Consolidated Power & Light Co. of South Dakota	2	1,000	4,670	5,670	9,290	17,875	7.7	11.9	71.3	37.6
20	Dakota Power Co	2	2,550	530	3,080	11,840	20,955	19.6	6.5	90.9	44.1
78	Municipal stations	17	0	2,356	2,356	11,840	23,311	0	5.0	90.9	49.1
	All other stations	70	1,213	22,963	24,176	13,053	47,487	9.1	50.9	100.0	100.0
	Total	96	13,053	34,434	47,487			100.0	100.0		
	Central stations and electric railways, 1912		6,913	20,835	27,748						

TENNESSEE.

10	E. W. Clark & Co. Mortgage Corporation	5	45,000	30,000	75,000	45,000	75,000	46.0	40.1	46.0	40.1
9	Chattanooga & Tennessee River Power Co	1	42,000	0	42,000	87,000	117,000	42.9	22.4	88.9	62.5
58,90	United Gas & Electric Corporation of Connecticut	2	0	22,970	22,970	87,000	139,970	0	12.3	88.9	74.8
40	Memphis Consolidated Gas & Electric Co	1	0	11,500	11,500	87,000	151,470	0	6.1	88.9	80.9
41	Merchants Power Co	1	0	7,330	7,330	87,000	158,800	0	3.9	88.9	84.8
56	Tennessee Eastern Electric Co	2	5,000	2,270	7,270	92,000	166,070	5.1	3.9	94.0	88.7
22	Doherty Operating Co	2	3,200	800	4,000	95,200	170,070	3.3	2.1	97.3	90.8
47	Public Light & Power Co	4	980	1,250	2,230	96,180	172,300	1.0	1.2	98.3	92.0
31	Jackson Railway & Light Co	1	0	1,670	1,670	96,180	173,970	0	.9	98.3	92.9
61	Municipal stations	29	300	6,646	6,946	96,480	180,916	.3	3.7	98.6	96.6
	All other stations	42	1,355	5,014	6,369	97,835	187,285	1.4	3.4	100.0	100.0
	Total	90	97,835	89,450	187,285			100.0	100.0		
	Central stations and electric railways, 1912		27,750	94,611	122,361						

TEXAS.

208	Stone & Webster	11	0	71,793	71,793	0	71,793	0	32.1	0	32.1
5	American Power & Light Co	19	0	46,775	46,775	0	118,568	0	20.9	0	53.0
232	United Gas & Electric Corporation	1	0	15,500	15,500	0	134,068	0	6.9	0	59.9
4	American Light & Traction Co	1	0	12,278	12,278	0	146,346	0	5.5	0	65.4
73	Doherty Operating Co	5	0	6,290	6,290	0	152,636	0	2.8	0	68.2
24	American Public Service Co	7	0	4,220	4,220	0	156,856	0	1.9	0	70.1
222	Texas Southern Electric Co	5	1,800	1,552	3,352	1,800	160,208	26.6	1.5	26.6	71.6
247	Yellow Pine Paper Mills Co	1	0	3,000	3,000	1,800	163,208	0	1.3	26.6	72.9
70	Dallas Ice Factory, Light & Power Co	1	0	2,350	2,350	1,800	165,558	0	1.1	26.6	74.0
138	The Laredo Electric Ry. Co	1	0	1,900	1,900	1,800	167,458	0	.9	26.6	74.9
268	Austin Street Ry. Co	1	0	1,750	1,750	1,800	169,208	0	.8	26.6	75.7
61	Colorado River Power Co	1	1,650	0	1,650	3,450	170,858	24.3	.7	50.9	76.4
57	Citizens Electric Light & Power Co	1	1,190	250	1,440	4,640	172,298	17.6	.6	68.5	77.0
1,248	State and municipal stations	21	225	8,249	8,474	4,865	180,772	3.3	3.8	71.8	80.8
	All other stations	198	1,912	40,949	42,861	6,777	223,633	28.2	19.2	100.0	100.0
	Total	274	6,777	216,856	223,633			100.0	100.0		
	Central stations and electric railways, 1912		3,503	164,185	167,688						

[a] Totals contain 20,400 water horsepower and 5,950 steam horsepower, total 26,350 horsepower, used in manufactures.

TABLE 54.—CONCENTRATION OF POWER DEVELOPMENT IN THE SEVERAL STATES SHOWING AMOUNTS OF WATER POWER, STEAM AND GAS POWER, AND OF TOTAL POWER CONTROLLED BY CERTAIN CORPORATIONS AND BY MUNICIPALITIES, IN HORSEPOWER AND IN PER CENT—Continued.

UTAH.

Reference Nos.	Name of company.	Individual totals.				Cumulative totals.		Individual percentages.		Cumulative percentages.	
		Number of stations.	Water power.	Steam and gas power.	All power.	Water power.	All power.	Water power.	All power.	Water power.	All power.
22	Utah Securities Corporation	25	79,565	28,594	108,159	79,565	108,159	82.2	84.3	82.2	84.3
1	Beaver River Power Co	1	2,500	0	2,500	82,065	110,659	2.6	2.0	84.8	86.3
11	L. L. Nunn	4	1,550	420	1,970	83,615	112,629	1.6	1.5	86.4	87.8
49	Municipal stations	22	7,151	650	7,801	90,766	120,430	7.4	6.0	93.8	93.8
	All other stations	24	5,968	1,950	7,918	96,734	128,348	6.2	6.2	100.0	100.0
	Total	76	96,734	31,614	128,348			100.0	100.0		
	Central stations and electric railways, 1912		74,688	27,186	101,874						

VERMONT.

41	New England Power Co. of Maine	3	31,300	700	32,000	31,300	32,000	26.5	21.9	26.5	21.9
96	International Paper Co	3	16,600	1,925	18,525	47,900	50,525	14.1	12.7	40.6	34.6
57	C. H. Tenney & Co	7	8,964	8,370	17,334	56,864	67,859	7.6	11.9	48.2	46.5
2	American Gas Co	2	13,000	1,330	14,330	69,864	82,189	11.0	9.8	59.2	56.3
6	W. S. Barstow & Co. (Inc.)	8	8,975	4,625	13,600	78,839	95,789	7.6	9.3	66.8	65.6
66	Vermont Marble Co	6	8,700	1,700	10,400	87,539	106,189	7.4	7.1	74.2	72.7
99	Missisquoi Pulp Co	1	4,400	200	4,600	91,939	110,789	3.7	3.2	77.9	75.9
37	Middle West Utilities Co	3	1,988	2,020	4,008	93,927	114,797	1.7	2.8	79.6	78.7
93	American Woolen Co	1	2,844	0	2,844	96,771	117,641	2.4	2.0	82.0	80.7
4	American Pipe & Construction Co	1	2,250	530	2,780	99,021	120,421	1.9	1.9	83.9	82.6
76	Woodbury Granite Co	3	1,250	1,330	2,580	100,271	123,001	1.1	1.8	85.0	84.4
94	Dalton Paper Mills	1	2,103	0	2,103	102,374	125,104	1.8	1.4	86.8	85.8
46	Newport Electric Light Co	1	1,600	300	1,900	103,974	127,004	1.4	1.3	88.2	87.1
95	Green Mountain Pulp Co	1	1,700	0	1,700	105,674	128,704	1.4	1.2	89.6	88.3
33	Lyman Falls Power Co	1	1,336	0	1,336	107,010	130,040	1.1	.9	90.7	89.2
80	Municipal stations	13	4,910	1,830	6,740	111,920	136,780	4.2	4.6	94.9	93.8
	All other stations	47	5,969	3,105	9,074	117,889	145,854	5.1	6.2	100.0	100.0
	Total	102	[a] 117,889	[a] 27,965	[a] 145,854			100.0	100.0		
	Central stations and electric railways, 1912		39,927	18,091	58,018						

VIRGINIA.

55	Virginia Railway & Power Co	4	19,000	46,420	65,420	19,000	65,420	20.2	31.4	20.2	31.4
7	H. M. Byllesby & Co	3	20,900	7,500	28,400	39,900	93,820	22.1	13.6	42.3	45.0
86	Riverside & Dan River Cotton Mills	2	13,270	11,500	24,770	53,170	118,590	14.1	11.9	56.4	56.9
2	American Railways Co	4	7,650	9,500	17,150	60,820	135,740	8.1	8.2	64.5	65.1
35	Newport News & Hampton Railway, Gas & Electric Co	2	0	8,280	8,280	60,820	144,020	0	4.0	64.5	69.1
59	Virginia Western Power Co	5	3,750	2,525	6,275	64,570	150,295	4.0	3.0	68.5	72.1
29	Municipal Service Co	4	1,900	3,555	5,455	66,470	155,750	2.0	2.6	70.5	74.7
49	Spotsylvania Power Co	1	4,500	0	4,500	70,970	160,250	4.8	2.2	75.3	76.9
86	The Warren-Burnham Co	1	0	4,000	4,000	70,970	164,250	0	1.9	75.3	78.8
83	The Bedford Pulp & Paper Co	1	3,400	0	3,400	74,370	167,650	3.6	1.6	78.9	80.4
89	The Washington & Old Dominion R. R. Co	1	0	3,300	3,300	74,370	170,950	0	1.6	78.9	82.0
37	Norfolk Southern R. R. Co	1	0	3,000	3,000	74,370	173,950	0	1.5	78.9	83.5
10	Charlottesville & Albemarle Ry. Co	1	0	2,300	2,300	74,370	176,250	0	1.1	78.9	84.6
18	Emporia Hydro-Electric Power Co	1	1,500	0	1,500	75,870	177,750	1.6	.7	80.5	85.3
68	Municipal stations	15	6,124	6,278	12,402	81,994	190,152	6.5	6.0	87.0	91.3
	All other stations	44	12,235	5,959	18,194	94,229	208,346	13.0	8.7	100.0	100.0
	Total	90	[b] 94,229	[b] 114,117	[b] 208,346			100.0	100.0		
	Central stations and electric railways, 1912		66,399	94,090	160,489						

WASHINGTON.

62	Stone & Webster	11	85,300	38,160	123,460	85,300	123,460	25.8	29.1	25.8	29.1
83	Washington Water Power Co	4	92,900	16,000	108,900	178,200	232,360	28.0	25.6	53.8	54.7
59	Spokane & Inland Emp. R. R. Co	1	20,000	0	20,000	198,200	252,360	6.0	4.7	59.8	59.4
1	American Power & Light Co	11	13,888	5,936	19,824	212,088	272,184	4.2	4.7	64.0	64.1
46	Northwestern Electric Co	1	18,000	0	18,000	230,088	290,184	5.4	4.2	69.4	68.3
53	Olympic Power Co	1	9,600	0	9,600	239,688	299,784	2.9	2.3	72.3	70.6
114	Great Northern Railroad Co	1	8,500	0	8,500	248,188	308,284	2.6	2.0	74.9	72.6
38	Lewiston-Clarkston Improvement Co	1	3,300	2,330	5,630	251,488	313,914	1.0	1.3	75.9	73.9
89	Wenatchee Valley Gas & Electric Co	3	4,800	0	4,800	256,288	318,714	1.5	1.1	77.4	75.0
30	Inland Portland Cement Co	1	4,000	0	4,000	260,288	322,714	1.2	1.0	78.6	76.0
25	Federal Light & Traction Co	1	0	3,500	3,500	260,288	326,214	.0	.8	78.6	76.8
81	Washington-Oregon Corporation	2	970	2,000	2,970	261,258	329,184	.3	.7	78.9	77.5
98	Municipal stations	12	54,510	13,450	67,960	315,768	397,144	16.5	16.0	95.4	93.5
	All other stations	66	15,366	12,344	27,710	331,134	424,854	4.6	6.5	100.0	100.0
	Total	116	331,134	93,720	424,854			100.0	100.0		
	Central stations and electric railways, 1912		269,641	72,060	341,701						

[a] Totals include 28,016 water horsepower and 2,125 steam horsepower, total 30,141 horsepower, used in manufactures.
[b] Totals include 17,830 water horsepower and 15,500 steam horsepower, total 33,330 horsepower, used in manufactures.

TABLE 54.—CONCENTRATION OF POWER DEVELOPMENT IN THE SEVERAL STATES SHOWING AMOUNTS OF WATER POWER, STEAM AND GAS POWER, AND OF TOTAL POWER CONTROLLED BY CERTAIN CORPORATIONS AND BY MUNICIPALITIES, IN HORSEPOWER AND IN PER CENT—Continued.

WEST VIRGINIA.

Reference Nos.	Name of company.	Individual totals.				Cumulative totals.		Individual percentages.		Cumulative percentages.	
		Number of stations.	Water power.	Steam and gas power.	All power.	Water power.	All power.	Water power.	All power.	Water power.	All power.
53	Virginian Power Co	1	0	20,000	20,000	0	20,000	0	14.4	0	14.4
26	General Utilities Operating Co	1	0	13,300	13,300	0	33,300	0	9.6	0	24.0
1	American Gas & Electric Co	2	0	12,500	12,500	0	45,800	0	9.0	0	33.0
74	Union Carbide Co	2	11,750	0	11,750	11,750	57,550	49.4	8.4	49.4	41.4
7	W. S. Barstow & Co. (Inc.)	4	0	11,000	11,000	11,750	68,550	0	7.9	49.4	49.3
5	American Water Works & Electric Co. (Inc.)	2	0	9,192	9,192	11,750	77,742	0	6.6	49.4	55.9
46	Northern Virginia Power Co	2	4,750	2,833	7,583	16,500	85,325	20.0	5.4	69.4	61.3
3	American Rys. Co	1	0	6,670	6,670	16,500	91,995	0	4.8	69.4	66.1
14	H. M. Byllesby & Co	2	0	6,050	6,050	16,500	98,045	0	4.3	69.4	70.4
68	Consolidated Coal Co. (Inc.)	1	0	6,000	6,000	16,500	104,045	0	4.3	69.4	74.7
35	Martinsburg Power Co	1	2,250	2,000	4,250	18,750	108,295	9.4	3.0	78.8	77.7
38	Monongahela Valley Traction Co	1	0	4,000	4,000	18,750	112,295	0	2.9	78.8	80.6
70	Harpers Ferry Paper Co	1	2,400	0	2,400	21,150	114,695	10.1	1.7	88.9	82.3
73	Shenandoah Pulp Co	1	2,000	0	2,000	23,150	116,695	8.4	1.4	97.3	83.7
31	Kanawha Traction & Electric Co	1	0	2,000	2,000	23,150	118,695	0	1.4	97.3	85.1
61	Municipal stations	6	0	1,755	1,755	23,150	120,450	0	1.3	97.3	86.4
	All other stations	47	637	18,313	18,950	23,787	139,400	2.7	13.6	100.0	100.0
	Total	76	23,787	115,613	139,400			100.0	100.0		
	Central stations and electric railways, 1912		6,036	62,889	68,925						

WISCONSIN.

124	North American Co	9	450	112,355	112,805	450	112,805	0.2	25.5	0.2	25.5
35	H. M. Byllesby & Co	2	26,800	0	26,800	27,250	139,605	11.5	6.1	11.7	31.6
197	Wisconsin River Power Co	1	25,000	0	25,000	52,250	164,605	10.7	5.6	22.4	37.2
9	American Public Utilities Co	6	13,350	3,695	17,045	65,600	181,650	5.7	3.8	28.1	41.0
47, 296	Consolidated Water Power & Paper Co	2	16,500	300	16,800	82,100	198,450	7.1	3.8	35.2	44.8
300	Kimberley-Clark Co	6	13,450	0	13,450	95,550	211,900	5.8	3.0	41.0	47.8
7	American Light & Traction Co	2	5,600	6,356	11,956	101,150	223,856	2.4	2.7	43.4	50.5
167	Southern Wisconsin Power Co	1	11,000	0	11,000	112,150	234,856	4.7	2.5	48.1	53.0
114	Nokoosa-Port Edwards Paper Co	3	10,700	80	10,780	122,850	245,636	4.6	2.4	52.7	55.4
198	Wisconsin Securities Co	2	8,000	2,470	10,470	130,850	256,106	3.4	2.4	56.1	57.8
196	Wisconsin Railway, Light & Power Co	1	8,000	0	8,000	138,850	264,106	3.4	1.8	59.5	59.6
200	Wisconsin Traction, Light, Heat & Power Co	1	2,550	5,330	7,880	141,400	271,986	1.1	1.8	60.6	61.4
68	Green Bay & Mississippi Canal Co	1	6,100	900	7,000	147,500	278,986	2.6	1.6	63.2	63.0
295	Combined Locks Paper Co	1	6,100	900	7,000	153,600	285,986	2.6	1.6	65.8	64.6
98	Menasha Woodenware Co	2	5,600	1,400	7,000	159,200	292,986	2.4	1.6	68.2	66.2
43	Commonwealth Power Co	1	0	6,500	6,500	159,200	299,486	0	1.5	68.2	67.7
321	Warsaw Paper Mills Co	1	4,756	600	5,356	163,956	304,842	2.0	1.2	70.2	68.9
323	Wisconsin River Pulp & Paper Co	1	5,300	0	5,300	169,256	310,142	2.3	1.2	72.5	70.1
309	Marathon Paper Mills Co	1	5,000	0	5,000	174,256	315,142	2.1	1.1	74.6	71.2
202	Municipal stations	85	3,143	15,034	18,177	177,399	333,319	1.4	4.1	76.0	75.3
	All other stations	195	56,170	53,207	109,377	233,569	442,696	24.0	24.7	100.0	100.0
	Total	324	[a] 233,569	[a] 209,127	[a] 442,696			100.0	100.0		
	Central stations and electric railways, 1912		94,284	177,779	272,063						

WYOMING.

23	Union Pacific Coal Co	3	0	3,900	3,900	0	3,900	0	22.3	0	22.3
7	Federal Light & Traction Co	2	0	3,825	3,825	0	7,725	0	21.9	0	44.2
27	Western Light & Power Co	1	0	1,565	1,565	0	9,290	0	9.0	0	53.2
19	Penn-Wyoming Copper Co	1	500	670	1,170	500	10,460	19.7	6.7	19.7	59.9
4	Cambria Fuel Co. of Wyoming	2	0	770	770	500	11,230	0	4.4	19.7	64.3
15	Intermountain Railway, Light & Power Co	1	0	700	700	500	11,930	0	4.0	19.7	68.3
18	Natrona County Electric Co	1	0	650	650	500	12,580	0	3.7	19.7	72.0
14	Hot Springs Light & Power Co	1	400	200	600	900	13,180	15.7	3.4	35.4	75.4
22	Shoshone Electric Light & Power Co	1	400	0	400	1,300	13,580	15.7	2.3	51.1	77.7
10, 29	United States Army and municipal stations	5	864	371	1,235	2,164	14,815	34.0	7.1	85.1	84.8
	All other stations	16	380	2,285	2,665	2,544	17,480	14.9	15.2	100.0	100.0
	Total	34	2,544	14,936	17,480			100.0	100.0		
	Central stations and electric railways, 1912		1,334	10,262	11,596						

[a] Totals contain 74,496 water horsepower and 8,360 steam horsepower, total 82,856 horsepower, used in manufactures.

UNITED STATES.

No.	Name of company.	Number of States.	Number of stations.	Individual totals.			Cumulative totals.		Individual percentages.		Cumulative percentages.	
				Water power.	Steam and gas power.	All power.	Water power.	All power.	Water power.	All power.	Water power.	All power.
1	Stone & Webster	13	62	340,211	189,643	529,854	340,211	529,854	6.39	3.57	6.39	3.57
2	Commonwealth Edison Co. (Illinois)	1	4	0	511,150	511,150	340,211	1,041,004	0	3.44	6.39	7.01
3	Consolidated Gas Co. (New York)	1	8	0	481,895	481,895	340,211	1,522,899	0	3.25	6.39	10.26
4	North American Co	3	30	5,583	420,377	425,960	345,794	1,948,859	.11	2.87	6.50	13.13
5	H. M. Byllesby & Co	17	53	116,155	160,341	276,496	461,949	2,225,355	2.18	1.81	8.68	14.99
6	E. W. Clark & Co., Mortgage Corporation	4	36	162,330	103,365	265,695	624,279	2,491,050	3.05	1.70	11.73	16.78
7	Pacific Gas & Electric Co. (California)	1	13	152,080	108,540	260,620	776,359	2,751,670	2.86	1.73	14.59	18.53
8	Interborough Metropolitan Co. (New York)	1	2	0	246,500	246,500	776,359	2,998,170	0	1.67	14.59	20.20
9	Public Service Corporation of New Jersey	1	16	0	232,905	232,905	776,359	3,231,075	0	1.56	14.59	21.76
10	Doherty Operating Co	14	43	43,100	180,401	223,501	819,459	3,454,576	.81	1.51	15.40	23.27
11	Southern Power Co. (South Carolina, North Carolina)	2	9	157,850	47,010	204,860	977,309	3,659,436	2.96	1.38	18.36	24.65
12	Utah Securities Corporation	3	43	171,702	30,374	202,076	1,149,011	3,861,512	3.23	1.36	21.59	26.01
13	Brooklyn Rapid Transit Co. (New York)	1	5	0	198,025	198,025	1,149,011	4,059,537	0	1.33	21.59	27.34
14	Pacific Light & Power Corporation (California)	1	13	117,950	79,300	197,250	1,266,961	4,256,787	2.22	1.33	23.81	28.67
15	Montana Power Co	1	19	179,700	8,300	188,000	1,446,661	4,444,787	3.37	1.27	27.18	29.94
16	International Paper Co	5	23	156,830	29,945	186,775	1,603,491	4,631,562	2.95	1.26	30.13	31.20
17	United Gas & Electric Corporation of Connecticut	9	17	5,250	181,110	186,360	1,608,741	4,817,922	.10	1.25	30.23	32.45
18	Commonwealth Power, Railway & Light Co	4	47	70,813	112,160	182,973	1,679,554	5,000,895	1.33	1.24	31.56	33.69
19	The Philadelphia Co. (Pennsylvania)	1	10	0	161,508	161,508	1,679,554	5,162,403	0	1.08	31.56	34.77
20	Hydraulic Power Co. of Niagara Falls	1	3	153,000	0	153,000	1,832,554	5,315,403	2.88	1.03	34.44	35.80
21	Edison Electric Illuminating Co. (Massachusetts)	1	3	0	140,850	140,850	1,832,554	5,456,253	0	.95	34.44	36.75
22	Central States Electric Corporation (Ohio)	1	1	0	135,700	135,700	1,832,554	5,591,953	0	.92	34.44	37.67
23	Southern California Edison Co	1	11	56,400	79,120	135,520	1,888,954	5,727,473	1.06	.91	35.50	38.58
24	Georgia Railway & Power Co	1	7	100,400	33,720	134,120	1,989,354	5,861,593	1.88	.90	37.38	39.48
25	Boston Electric Railways Co. (Massachusetts)	1	6	0	126,300	126,300	1,989,354	5,987,893	0	.85	37.38	40.33
26	Washington Water Power Co	2	5	109,200	16,000	125,200	2,098,554	6,113,093	2.05	.85	39.43	41.18
27	Pennsylvania Water & Power Co	1	2	118,000	0	118,000	2,216,554	6,231,093	2.22	.79	41.65	41.97
28	The Niagara Falls Power Co. (New York)	1	2	115,000	0	115,000	2,331,554	6,346,093	2.16	.77	43.81	42.74
29	Western Power Co. (California)	1	4	73,330	38,670	112,000	2,404,884	6,458,093	1.38	.76	45.19	43.50
30	American Gas & Electric Co	5	20	0	109,970	109,970	2,404,884	6,568,063	0	.74	45.19	44.24
31	Philadelphia Rapid Transit Co	1	5	0	105,730	105,730	2,404,884	6,673,793	0	.71	45.19	44.95
32	New York, New Haven & Hartford R. R. Co	3	16	8,050	96,500	104,550	2,412,934	6,778,343	.15	.71	45.34	45.66
33	W. S. Barstow & Co. (Inc.)	7	32	13,475	82,545	96,020	2,426,409	6,874,363	.25	.64	45.59	46.30
34	New York Central & Hudson River R. R. Co	1	4	22,325	70,800	93,125	2,448,734	6,967,488	.42	.63	46.01	46.93
35	American Power & Light Co	4	40	22,978	69,221	92,199	2,471,712	7,059,687	.44	.62	46.45	47.55
36	Alabama Traction, Light & Power Co	1	7	72,500	18,920	91,420	2,544,212	7,151,107	1.36	.62	47.81	48.17
37	United Railways Investment Co. (California)	1	5	65,600	25,330	90,930	2,609,812	7,242,037	1.23	.61	49.04	48.78
38	Middle West Utilities Co	9	118	16,824	69,890	86,714	2,626,636	7,328,751	.32	.58	49.36	49.36
39	Pennsylvania R. R. Co	2	2	0	85,370	85,370	2,626,636	7,414,121	0	.58	49.36	49.94
40	New England Power Co. of Maine	2	7	80,700	700	81,400	2,707,336	7,495,521	1.51	.55	50.87	50.49
41	Lehigh Coal & Navigation Co. (Pennsylvania)	1	4	5,367	70,500	75,867	2,712,703	7,571,388	.10	.51	50.97	51.00
42	Kings County Electric Light & Power Co. (New York)	1	3	0	74,670	74,670	2,712,703	7,646,058	0	.50	50.97	51.50
43	San Joaquin Light & Power Corporation (California)	1	8	40,150	28,950	69,100	2,752,853	7,715,158	.76	.47	51.73	51.97
44	Twin City Rapid Transit Co. (Minnesota)	1	1	0	66,700	66,700	2,752,853	7,781,858	0	.45	51.73	52.42
45	Ohio Traction Co	1	6	0	65,611	65,611	2,752,853	7,847,469	0	.44	51.73	52.86
46	Virginia Railway & Power Co	1	4	19,000	46,420	65,420	2,771,853	7,912,889	.36	.44	52.09	53.30
47	Illinois Traction Co	3	36	4,415	59,026	63,441	2,776,268	7,976,330	.08	.43	52.17	53.73
48	United Railways & Electric Co. of Baltimore	1	4	0	61,875	61,875	2,776,268	8,038,205	0	.42	52.17	54.15
49	Northwestern Power Co (Minnesota)	1	2	57,000	4,670	61,670	2,833,268	8,099,875	1.07	.42	53.24	54.57
50	C. H. Tenney & Co	4	18	10,730	50,728	61,458	2,843,998	8,161,333	.20	.41	53.44	54.98
51	Public Service Co. of Northern Illinois	1	13	5,300	55,930	61,230	2,849,298	8,222,563	.10	.41	53.54	55.39
52	American Water Works & Electric Co	3	14	0	59,097	59,097	2,849,298	8,281,660	0	.40	53.54	55.79
53	Consolidated Gas Electric Light & Power Co. (Maryland)	1	7	1,000	56,710	57,710	2,850,298	8,339,370	.02	.39	53.56	56.18
54	Massachusetts Electric Cos	1	13	0	57,575	57,575	2,850,298	8,396,945	0	.38	53.56	56.56
55	Pillsbury-Washburn Flour Mills Co. (Minnesota)	1	2	57,500	0	57,500	2,907,798	8,454,445	1.08	.38	54.64	56.94
56	Washington Railway & Electric Co. (District of Columbia)	1	1	0	53,800	53,800	2,907,798	8,508,245	0	.37	54.64	57.31
57	Kansas City Railway & Light Co. (Missouri)	1	1	0	53,300	53,300	2,907,798	8,561,545	0	.36	54.64	57.67
58	Carolina Power & Light Co. (North Carolina)	1	9	44,400	7,725	52,125	2,952,198	8,613,670	.83	.35	55.47	58.02
59	American Gas Co	5	17	15,525	36,350	51,875	2,967,723	8,665,545	.30	.35	55.77	58.37
60	United Light & Railways Co	2	7	500	50,025	50,525	2,968,223	8,716,070	.01	.34	55.78	58.71
61	New England Investment Co. (Massachusetts)	1	4	49,400	0	49,400	3,017,623	8,765,470	.92	.33	56.70	59.04
62	Nevada-California Power Co. (California)	1	7	37,750	10,670	48,420	3,055,373	8,813,890	.71	.33	57.41	59.37
63	Detroit United Railways	1	9	0	46,986	46,986	3,055,373	8,860,876	0	.32	57.41	59.69
64	Colorado Power Co	1	7	41,750	4,870	46,620	3,097,123	8,907,496	.79	.31	58.20	60.00
65	J. G. White & Co	4	17	20,880	25,599	46,479	3,118,003	8,953,975	.39	.31	58.59	60.31
66	American Public Utilities Co	3	9	13,350	31,895	45,245	3,131,353	8,999,220	.25	.31	58.84	60.62
67	American Light & Traction Co	4	5	13,400	31,584	44,984	3,144,753	9,044,204	.25	.30	59.09	60.92
68	Louisville Traction Co	1	2	0	44,130	44,130	3,144,753	9,088,334	0	.30	59.09	61.22
69	United Gas Improvement Co	4	9	350	43,641	43,991	3,145,103	9,132,325	.01	.29	59.10	61.51
70	Chattanooga & Tennessee Railway Power Co. (Tennessee)	1	1	42,000	0	42,000	3,187,103	9,174,325	.79	.28	59.89	61.79
71	National Securities Corporation	2	4	39,350	2,000	41,350	3,226,453	9,215,675	.74	.28	60.63	62.07
72	Indianapolis Light & Heat Co	1	1	0	40,900	40,900	3,226,453	9,256,575	0	.28	60.63	62.35
73	Niagara, Lockport & Ontario Power Co. (New York)	1	1	40,000	0	40,000	3,266,453	9,296,575	.75	.27	61.38	62.62
74	Aluminum Co. of America (New York)	1	2	40,000	0	40,000	3,306,453	9,336,575	.75	.27	62.13	62.89
75	Columbia Gas & Electric Co. (Ohio)	1	1	0	38,930	38,930	3,306,453	9,375,505	0	.26	62.13	63.15
76	Georgia Light, Power & Railway Co	1	3	33,000	4,750	37,750	3,339,453	9,413,255	.62	.26	62.75	63.41
77	Turners Falls Power Co. (Massachusetts)	1	2	36,900	0	36,900	3,376,353	9,450,155	.70	.24	63.45	63.65
78	Pacific Lighting Corporation (California)	1	1	0	34,202	34,202	3,376,353	9,484,357	0	.23	63.45	63.88
79	Columbia Railway, Gas & Electric Co. (South Carolina)	1	2	26,000	7,330	33,330	3,402,353	9,517,687	.48	.23	63.93	64.11
80	Northern Ohio Traction & Light Co	1	2	2,270	31,000	33,270	3,404,623	9,550,957	.05	.22	63.98	64.35

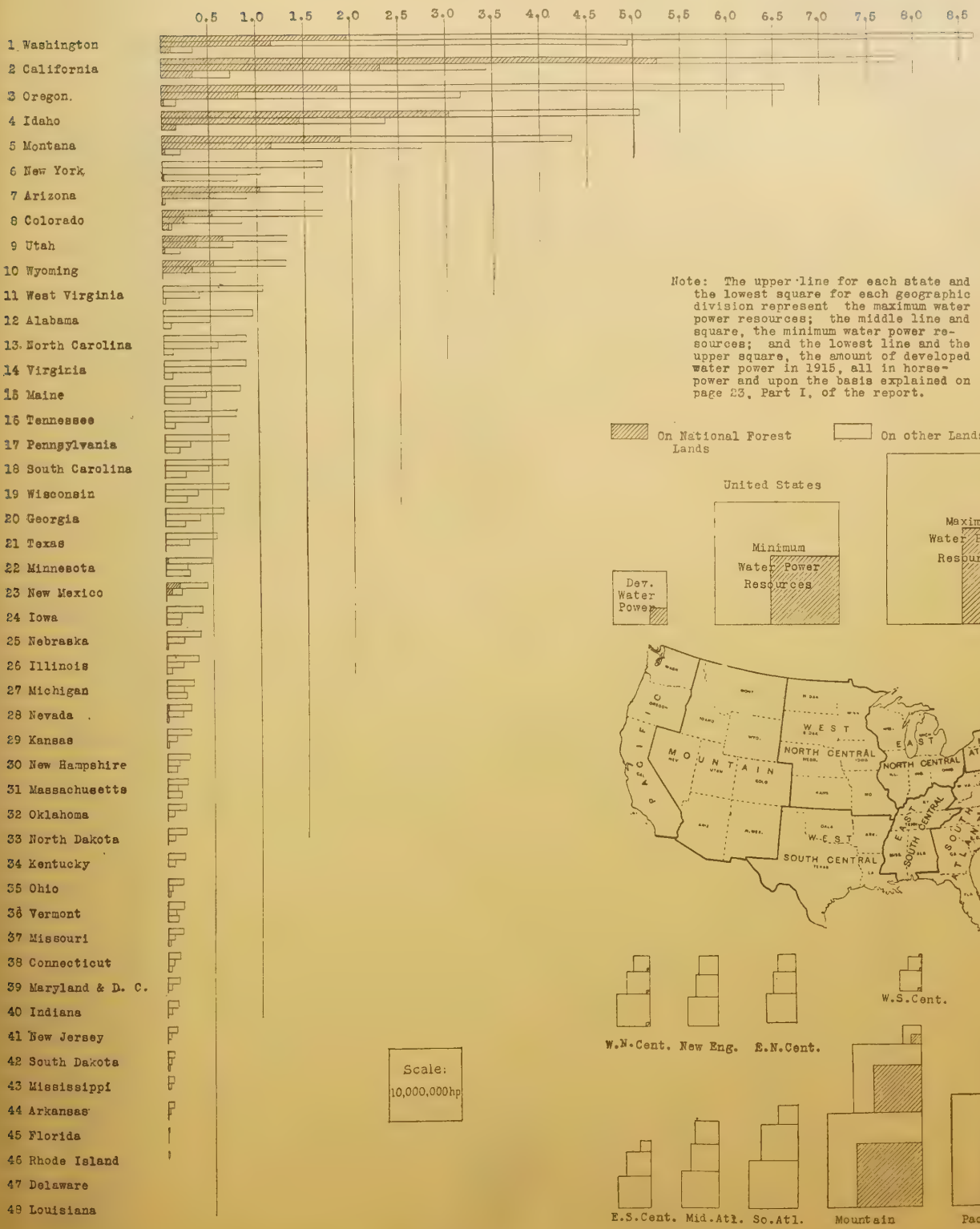
UNITED STATES—Continued.

No.	Name of company.	Number of States.	Number of stations.	Individual totals.			Cumulative totals.		Individual percentages.		Cumulative percentages.	
				Water power.	Steam and gas power.	All power.	Water power.	All power.	Water power.	All power.	Water power.	All power.
81	United Properties Co. (California)	1	6	0	33,025	33,025	3,404,623	9,583,982	0	0.22	63.98	64.55
82	Federal Light & Traction Co	7	12	0	32,373	32,373	3,404,623	9,616,355	0	.22	63.98	64.77
83	Fort Wayne & Northern Indiana Traction Co	1	3	0	32,160	32,160	3,404,623	9,648,515	0	.22	63.98	64.99
84	United Illuminating Co. (Connecticut)	1	2	0	31,200	31,200	3,404,623	9,679,715	0	.21	63.98	65.20
85	General Electric Co. (New York)	1	3	31,000	0	31,000	3,435,623	9,710,715	.58	.21	64.56	65.41
86	Union Carbide Co. (Michigan)	1	1	30,800	0	30,800	3,466,423	9,741,515	.58	.20	65.14	65.61
87	Cohoes Co. (New York)	1	1	30,000	0	30,000	3,496,423	9,771,515	.56	.19	65.70	65.80
	Total for 87 corporations	48	1,040	3,496,423	6,275,092	9,771,515	3,496,423	9,771,515	65.70	65.80	65.70	65.80
	Municipal stations	48	1,600	231,525	496,984	728,509	3,727,948	10,500,024	4.35	4.93	70.05	70.73
	All other stations	48	4,299	1,593,751	2,752,367	4,346,118	5,321,699	14,846,142	29.95	29.27	100.00	100.00
	Grand totals		6,939	5,321,699	9,524,443	14,846,142						
	Total manufacturing power included			736,197	172,210	908,407						
	Central stations and electric railways, 1915			4,585,502	9,352,233	13,937,735						
	Central stations and electric railways, 1912			2,942,388	8,251,311	11,193,699						
	Increase 1912 to 1915			1,643,114	1,100,922	2,744,036						
	Per cent of increase			35.8	11.8	19.7						

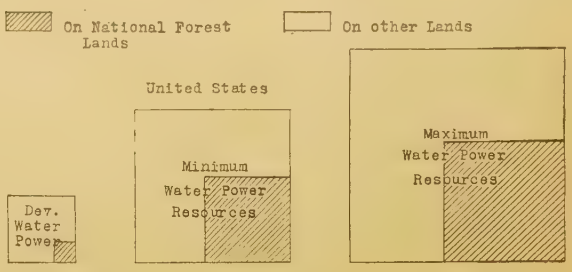
NOTE.—All but two of the corporations listed hereon, the International Paper Co. (16) and the Union Carbide Co. (86), are engaged in public-service operations, or own or control power which is used for such purposes. The Pillsbury-Washburn Flour Mills Company (55) leases a part of its water power to the Twin City Rapid Transit Company (44).

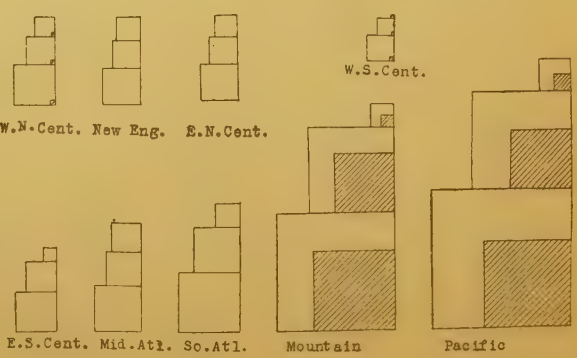
POTENTIAL WATER POWER RESOURCES - MINIMUM AND MAXIMUM ESTIMATES AND DEVELOPED WATER POWERS, 1915

Together with Amounts Upon National Forests
By States and by Geographic Divisions
In Million of Horsepower



Note: The upper line for each state and the lowest square for each geographic division represent the maximum water power resources; the middle line and square, the minimum water power resources; and the lowest line and the upper square, the amount of developed water power in 1915, all in horsepower and upon the basis explained on page 23, Part I, of the report.





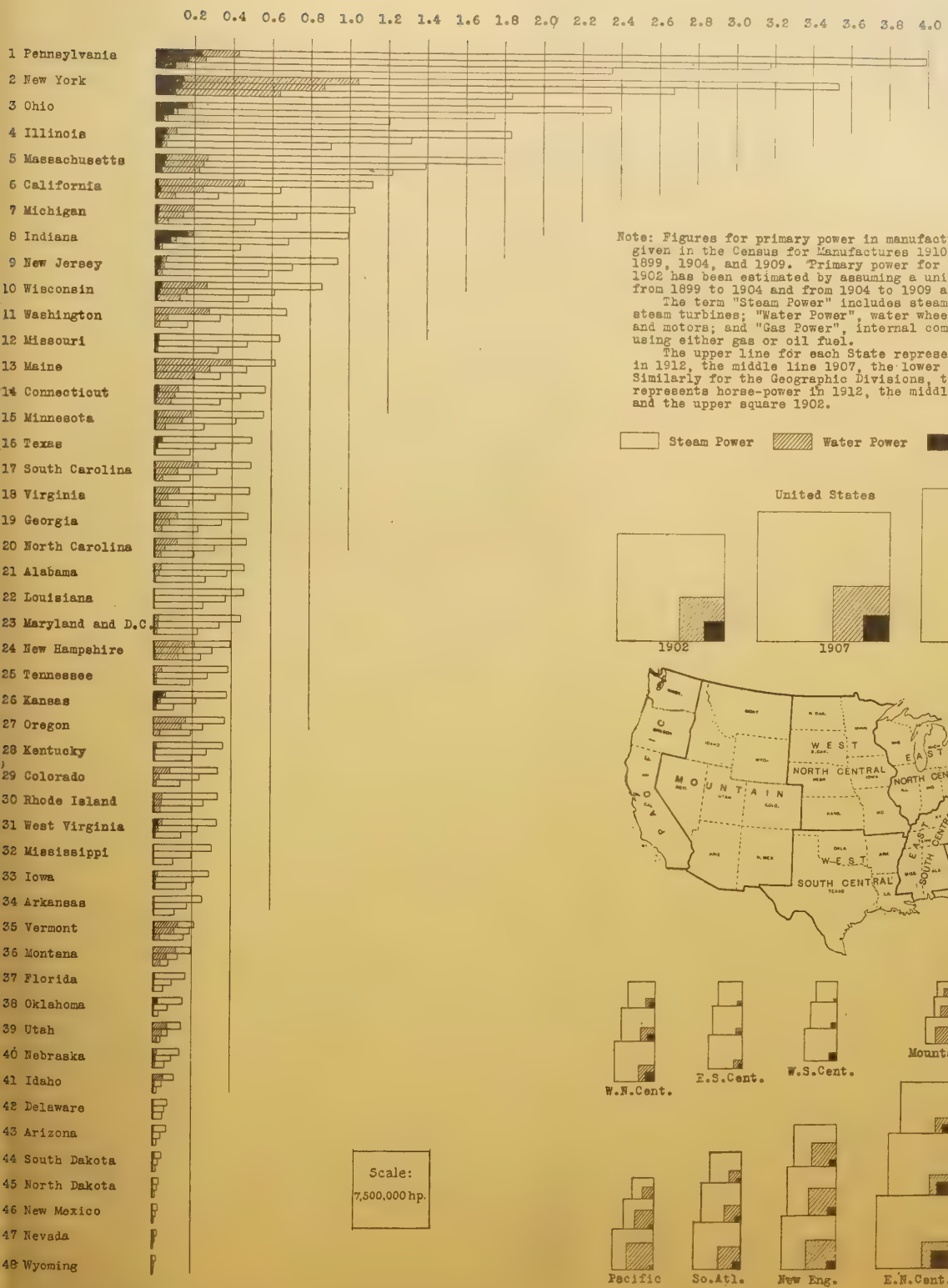
To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

26520°—S. Doc. 316, 64-1—pt 2——6

TOTAL PRIMARY POWER IN 1912, 1907 AND 1902

PLATE 2

Steam Power, Water Power, and Gas Power
By States and by Geographic Divisions
In Millions of Horse-Power

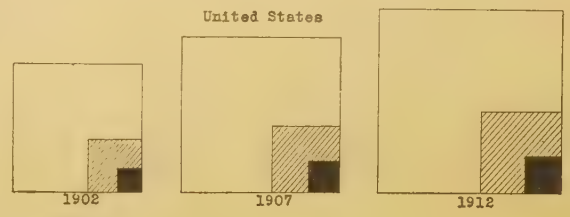


Note: Figures for primary power in manufacturing plants are given in the Census for Manufactures 1910, for the years 1899, 1904, and 1909. Primary power for 1912, 1907, and 1902 has been estimated by assuming a uniform increase from 1899 to 1904 and from 1904 to 1909 and 1912.

The term "Steam Power" includes steam engines and steam turbines; "Water Power", water wheels, turbines, and motors; and "Gas Power", internal combustion engines using either gas or oil fuel.

The upper line for each State represents horse-power in 1912, the middle line 1907, the lower line 1902. Similarly for the Geographic Divisions, the lower square represents horse-power in 1912, the middle square 1907, and the upper square 1902.

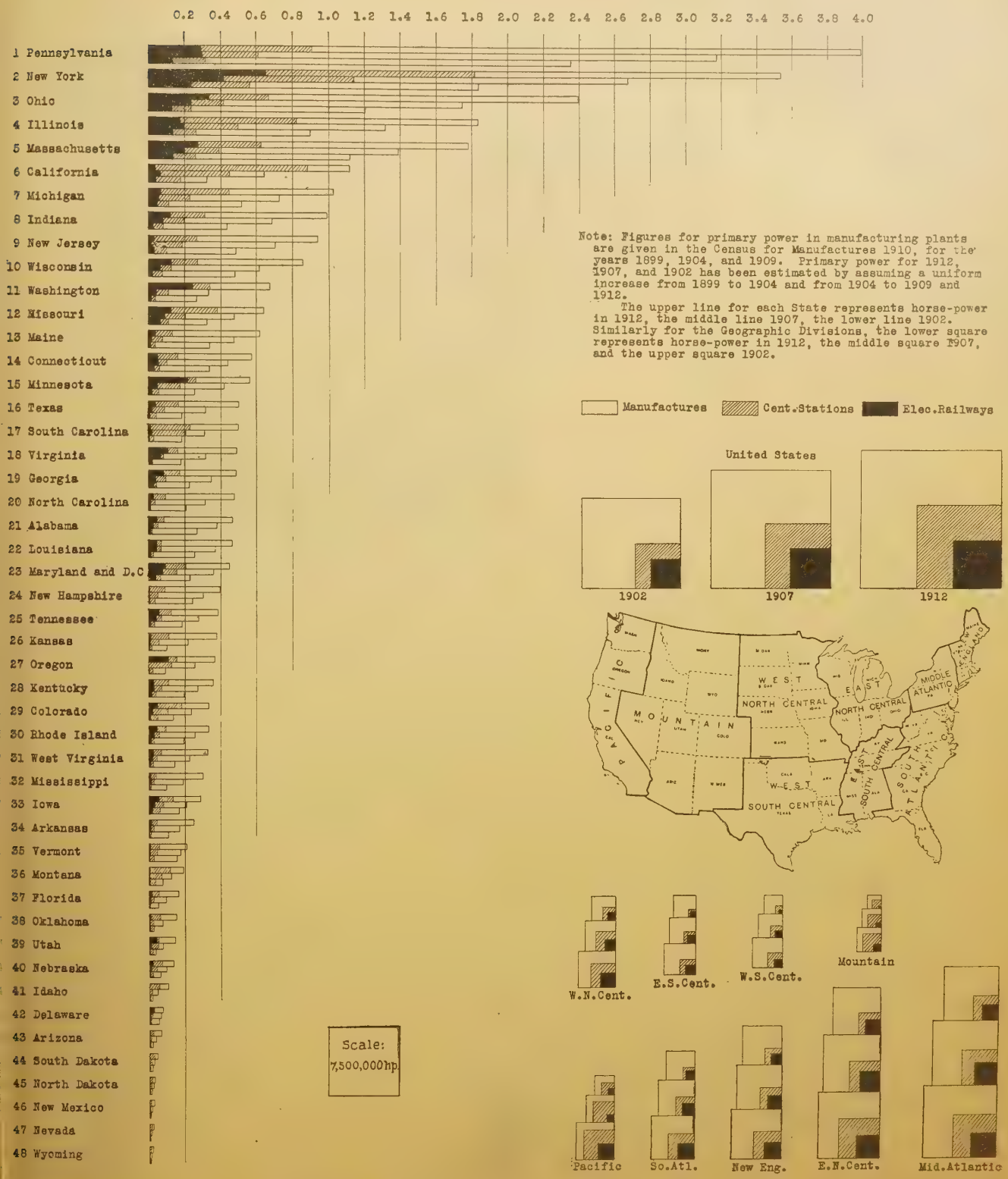
Steam Power Water Power Gas Power



To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

TOTAL PRIMARY POWER IN 1912, 1907 AND 1902

In Commercial and Municipal Central Stations, Street and Electric Railways, and Manufacturing Plants
By States and by Geographic Divisions
In Millions of Horse-Power



Note: Figures for primary power in manufacturing plants are given in the Census for Manufactures 1910, for the years 1899, 1904, and 1909. Primary power for 1912, 1907, and 1902 has been estimated by assuming a uniform increase from 1899 to 1904 and from 1904 to 1909 and 1912.

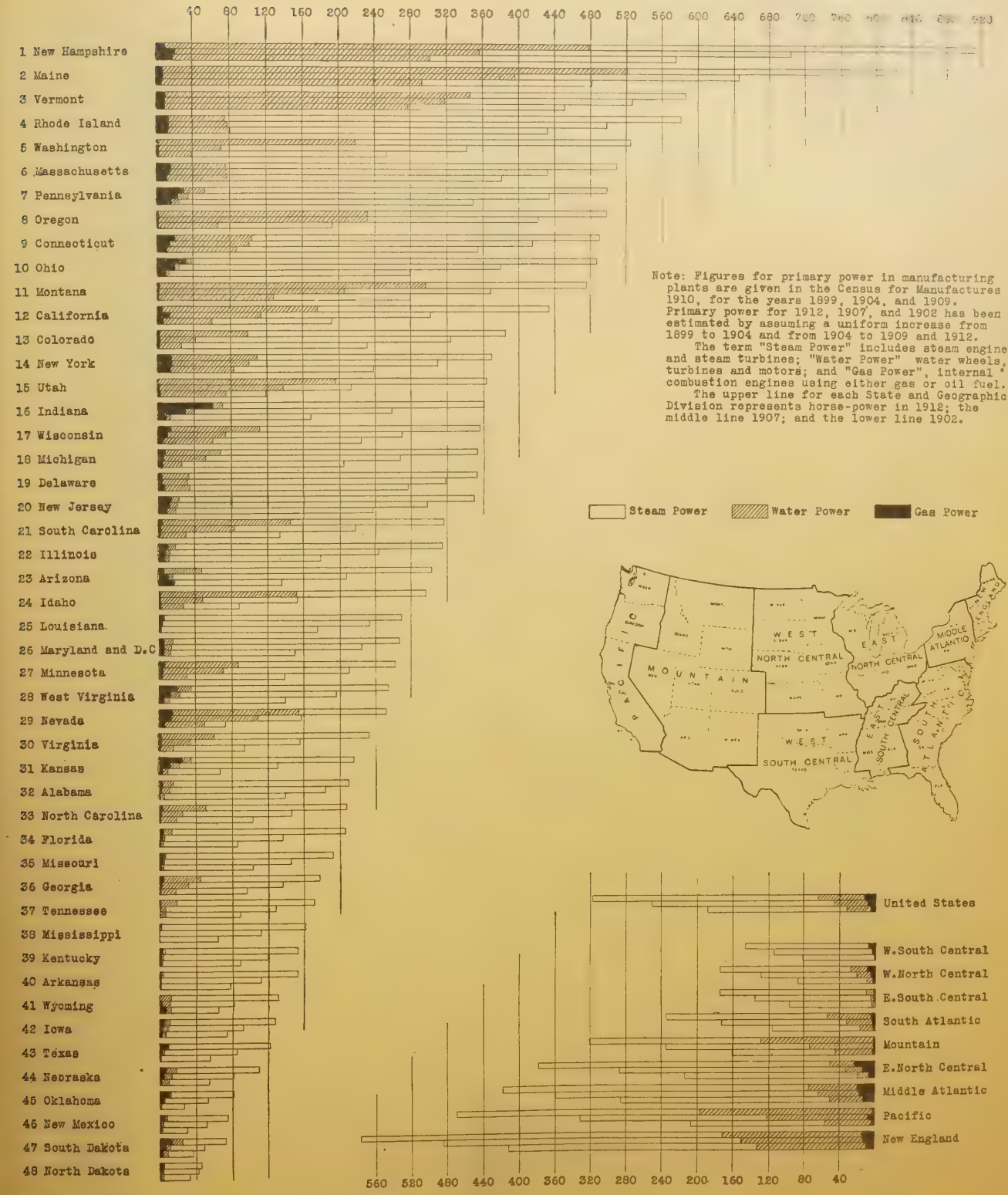
The upper line for each State represents horse-power in 1912, the middle line 1907, the lower line 1902. Similarly for the Geographic Divisions, the lower square represents horse-power in 1912, the middle square 1907, and the upper square 1902.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

TOTAL PRIMARY POWER PER THOUSAND OF POPULATION IN 1912, 1907 AND 1902

PLATE 4

Steam Power, Water Power, and Gas Power
By States and By Geographic Divisions
In Horse-Power



Note: Figures for primary power in manufacturing plants are given in the Census for Manufactures 1910, for the years 1899, 1904, and 1909. Primary power for 1912, 1907, and 1902 has been estimated by assuming a uniform increase from 1899 to 1904 and from 1904 to 1909 and 1912.

The term "Steam Power" includes steam engines and steam turbines; "Water Power" water wheels, turbines and motors; and "Gas Power", internal combustion engines using either gas or oil fuel.

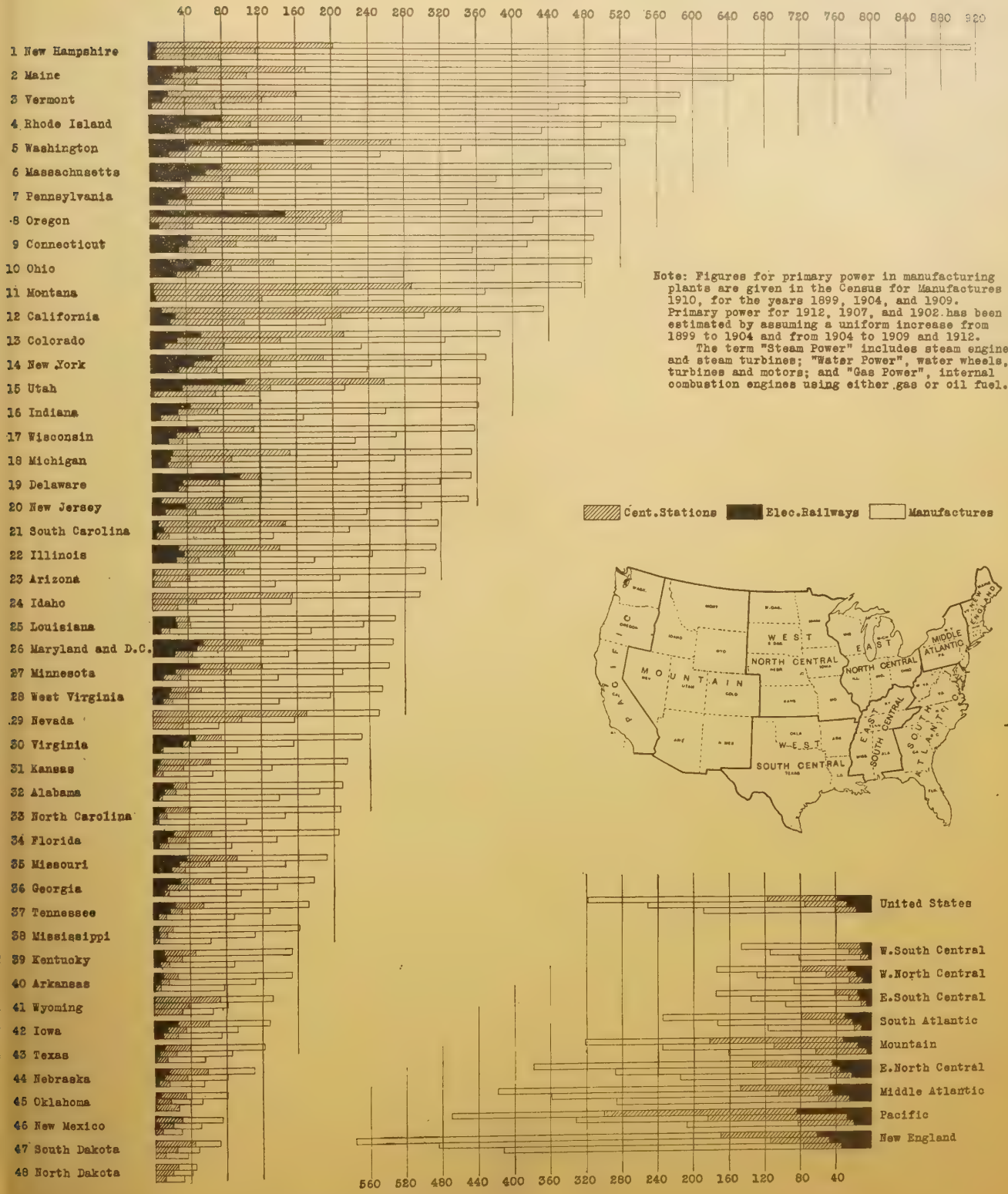
The upper line for each State and Geographic Division represents horse-power in 1912; the middle line 1907; and the lower line 1902.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

TOTAL PRIMARY POWER PER THOUSAND OF POPULATION IN 1912, 1907 AND 1902

PLATE 5

In Commercial and Municipal Central Stations, Street and Electric Railways, and Manufacturing Plants
By States and by Geographic Divisions
In Horse-Power



Note: Figures for primary power in manufacturing plants are given in the Census for Manufactures 1910, for the years 1899, 1904, and 1909. Primary power for 1912, 1907, and 1902 has been estimated by assuming a uniform increase from 1899 to 1904 and from 1904 to 1909 and 1912.

The term "Steam Power" includes steam engines and steam turbines; "Water Power", water wheels, turbines and motors; and "Gas Power", internal combustion engines using either gas or oil fuel.

To accompany report on Sen. Res. No. 544, 62rd. Cong., 3rd. Sess.

INCREASE IN PRIMARY POWER DEVELOPMENT, 1902 TO 1912

PLATE 6

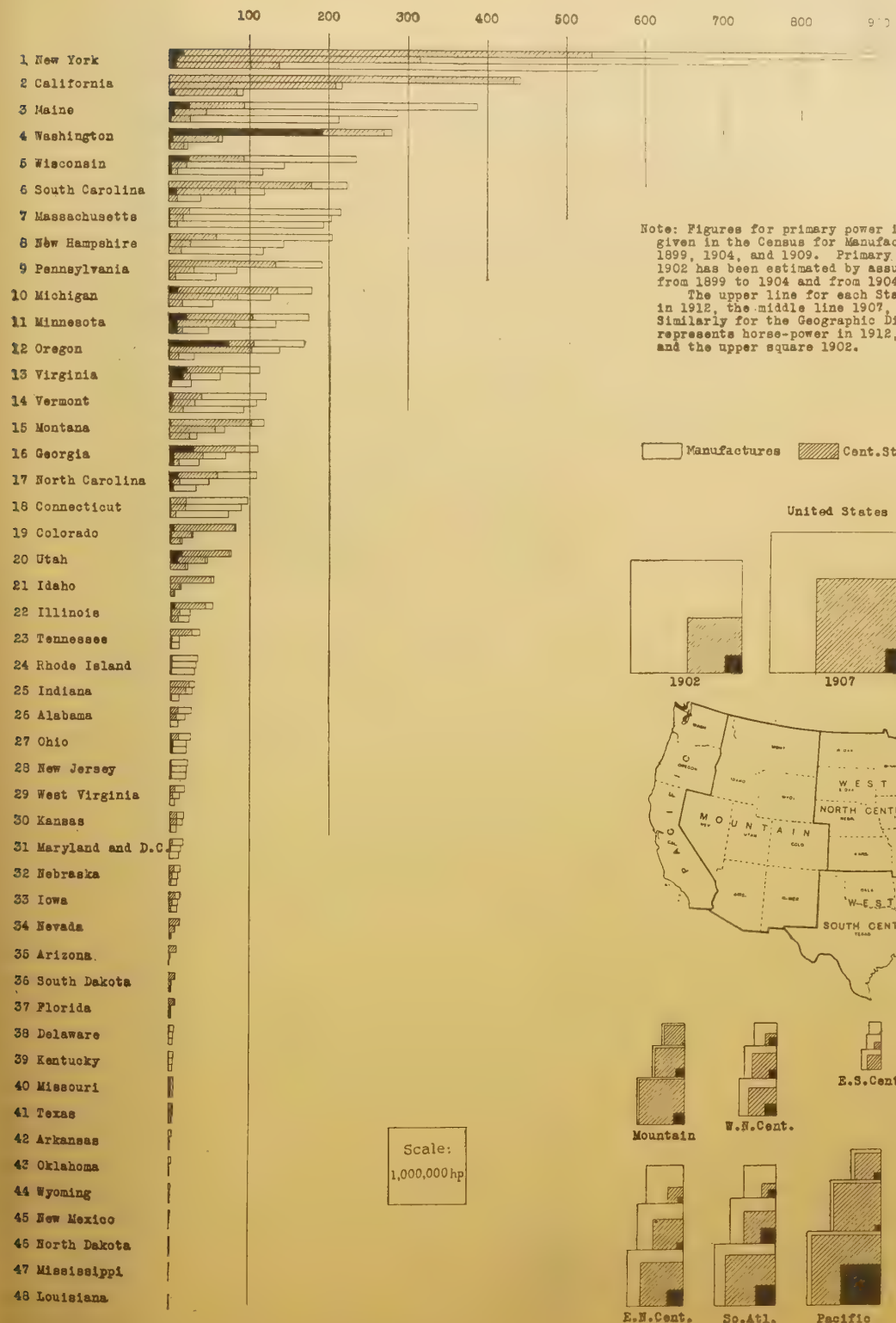
By States and by Geographic Divisions
In Per Cent of Power in 1902

To accompany report on Sen. Res. No. 544. 63rd. Cong., 3rd. Sess.

WATER POWER - INSTALLED CAPACITY IN 1912, 1907 AND 1902

PLATE 7

In Commercial and Municipal Central Stations, Street and Electric Railways, and Manufacturing Plants
By States and by Geographic Divisions
In Thousands of Horse-Power



Note: Figures for primary power in manufacturing plants are given in the Census for Manufactures 1910, for the years 1899, 1904, and 1909. Primary power for 1912, 1907, and 1902 has been estimated by assuming a uniform increase from 1899 to 1904 and from 1904 to 1909 and 1912.

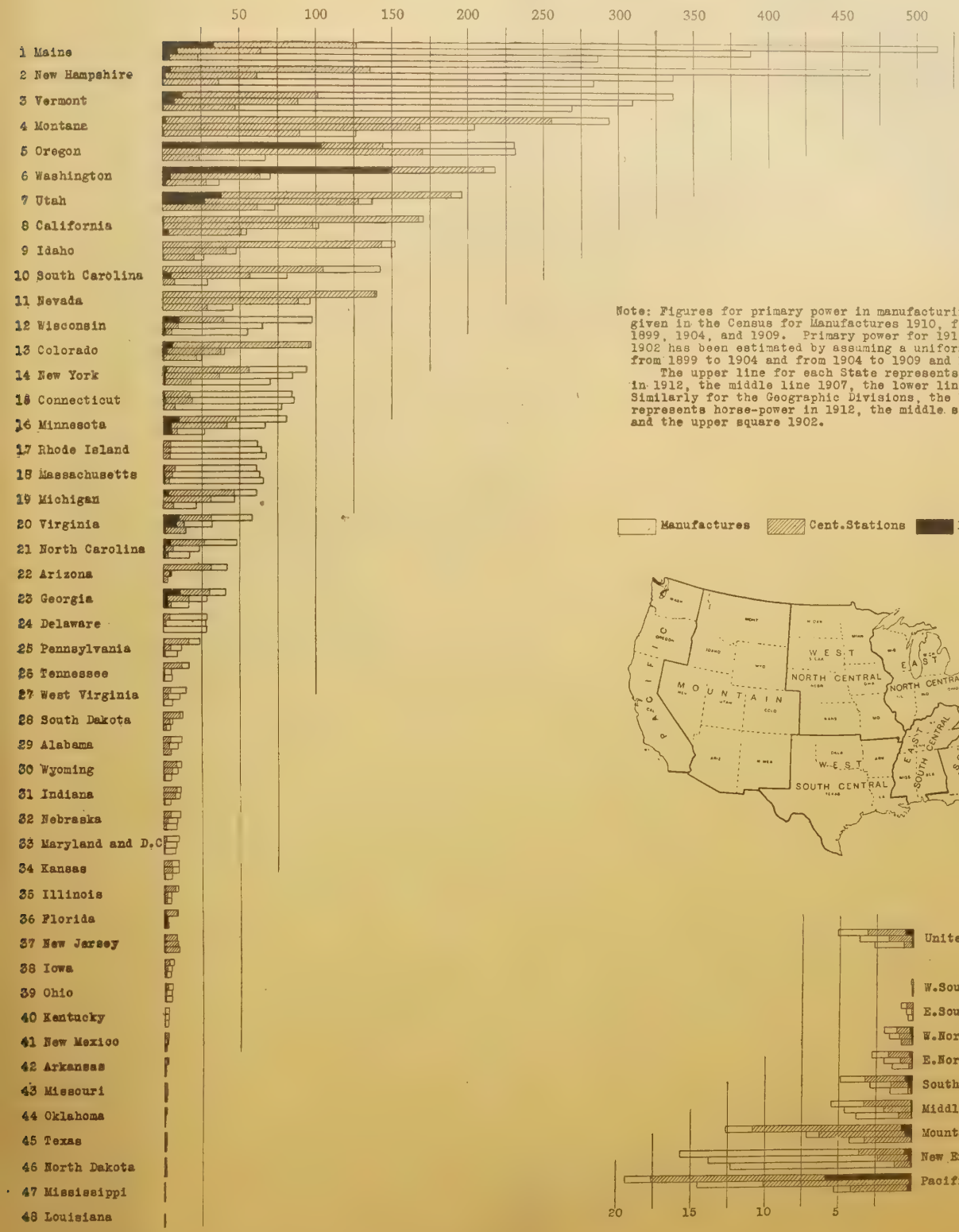
The upper line for each State represents horse-power in 1912, the middle line 1907, the lower line 1902. Similarly for the Geographic Divisions, the lower square represents horse-power in 1912, the middle square 1907, and the upper square 1902.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

WATER POWER - INSTALLED CAPACITY PER THOUSAND OF POPULATION IN 1912, 1907 and 1902

PLATE 8

In Commercial and Municipal Central Stations, Street and Electric Railways, and Manufacturing Plants
By States and by Geographic Divisions
In Horse-Power



Note: Figures for primary power in manufacturing plants are given in the Census for Manufactures 1910, for the years 1899, 1904, and 1909. Primary power for 1912, 1907, and 1902 has been estimated by assuming a uniform increase from 1899 to 1904 and from 1904 to 1909 and 1912.

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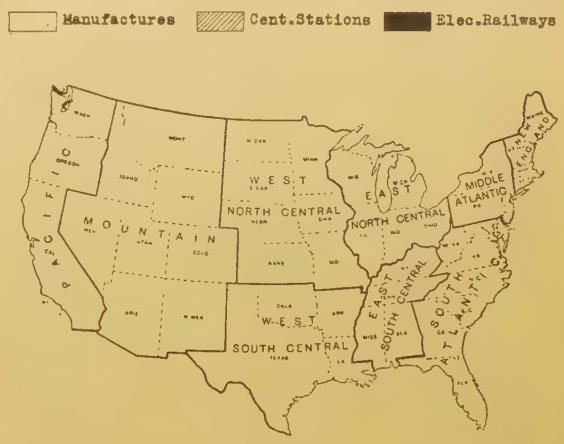
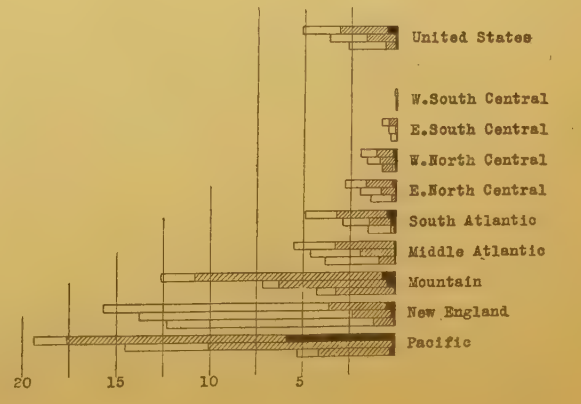


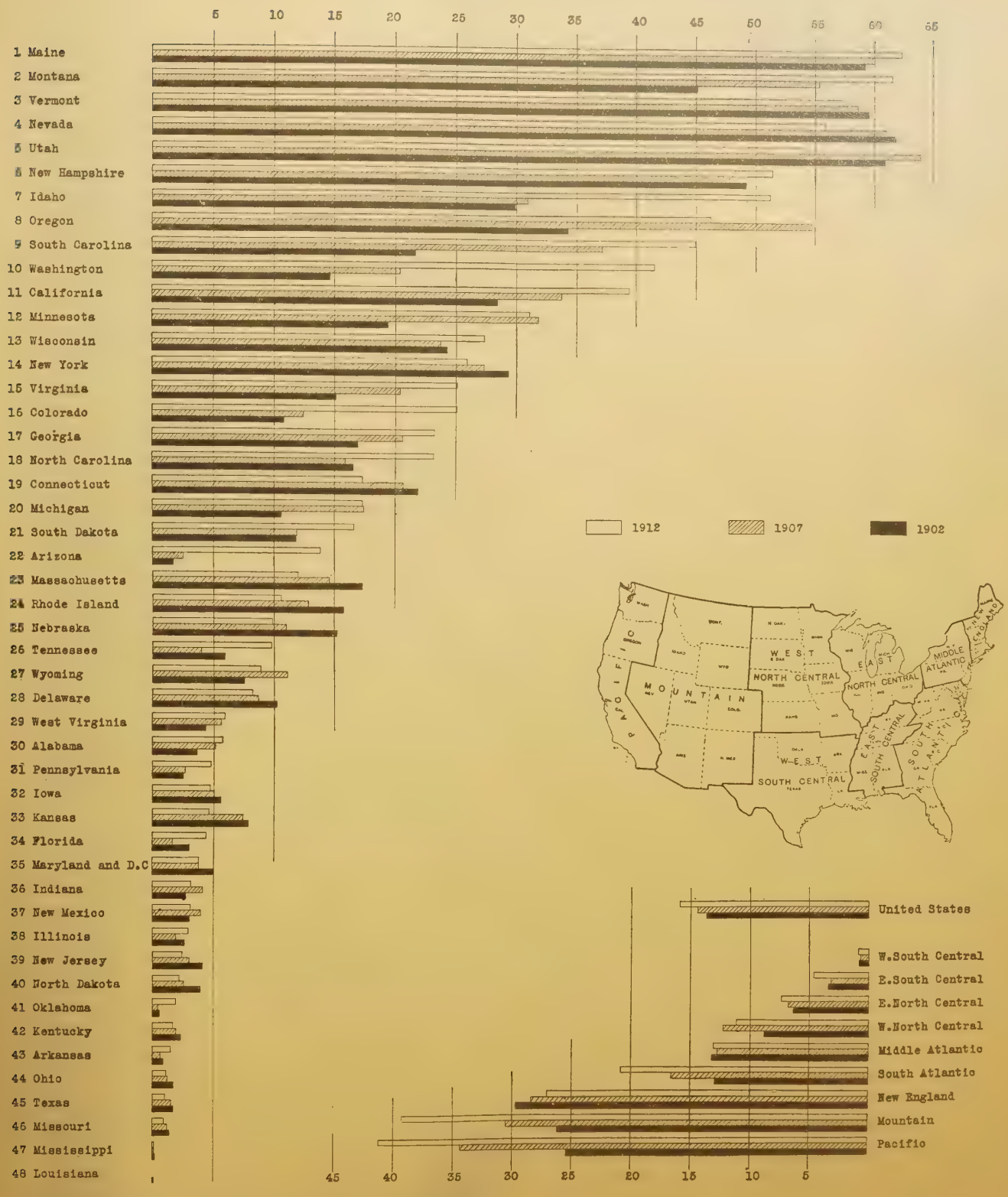


To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

RATIO OF WATER POWER TO TOTAL PRIMARY POWER IN 1912, 1907 AND 1902

By States and by Geographic Divisions
In Per Cent of Total Power

PLATE 9



To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

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INCREASE IN WATER POWER DEVELOPMENT, 1902 TO 1912

By States and by Geographic Divisions
In Per Cent of Power in 1902

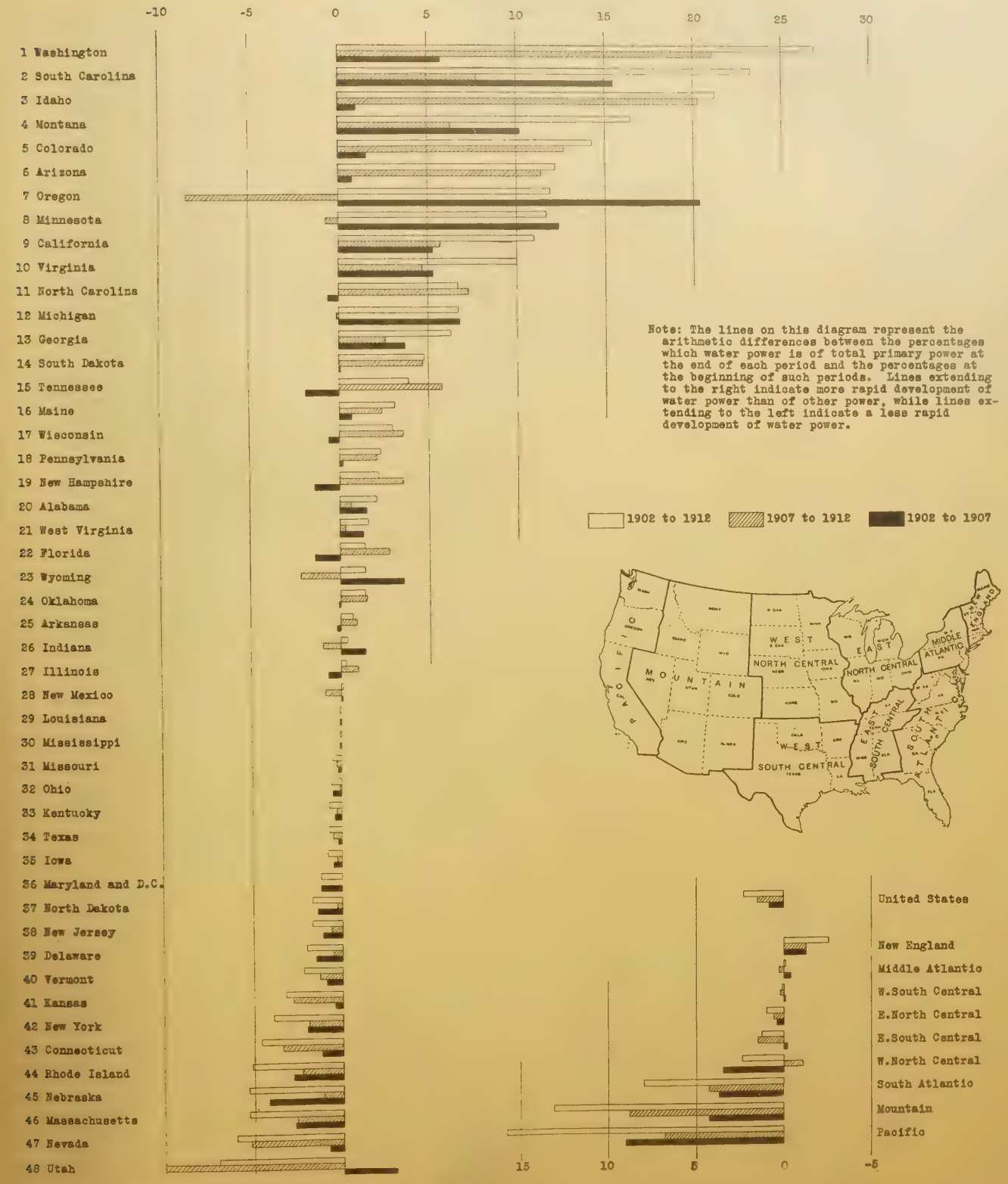
PLATE 10

To accompany report on Sen. Res. No. 544, 62rd. Cong., 3rd. Sess.

INCREASE OR DECREASE IN WATER POWER DEVELOPMENT IN PER CENT OF TOTAL POWER DEVELOPMENT

PLATE II

For the Periods 1902 to 1912, 1907 to 1912, and 1902 to 1907
By States and by Geographic Divisions

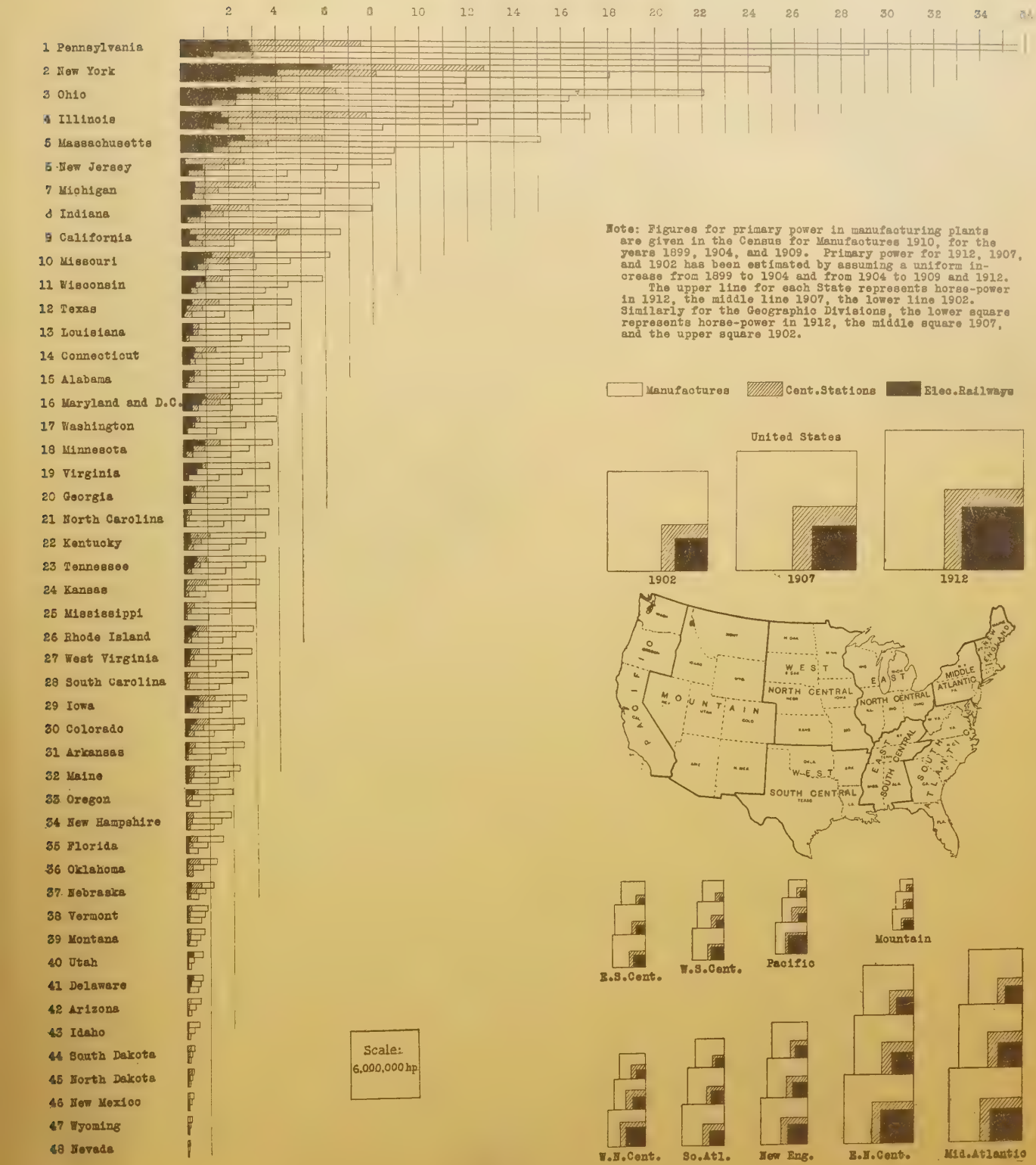


To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

STEAM POWER - INSTALLED CAPACITY IN 1912, 1907 AND 1902

PLATE 14

In Commercial and Municipal Central Stations, Street and Electric Railways, and Manufacturing Plants
By States and by Geographic Divisions
In Hundreds of Thousands of Horse-Power



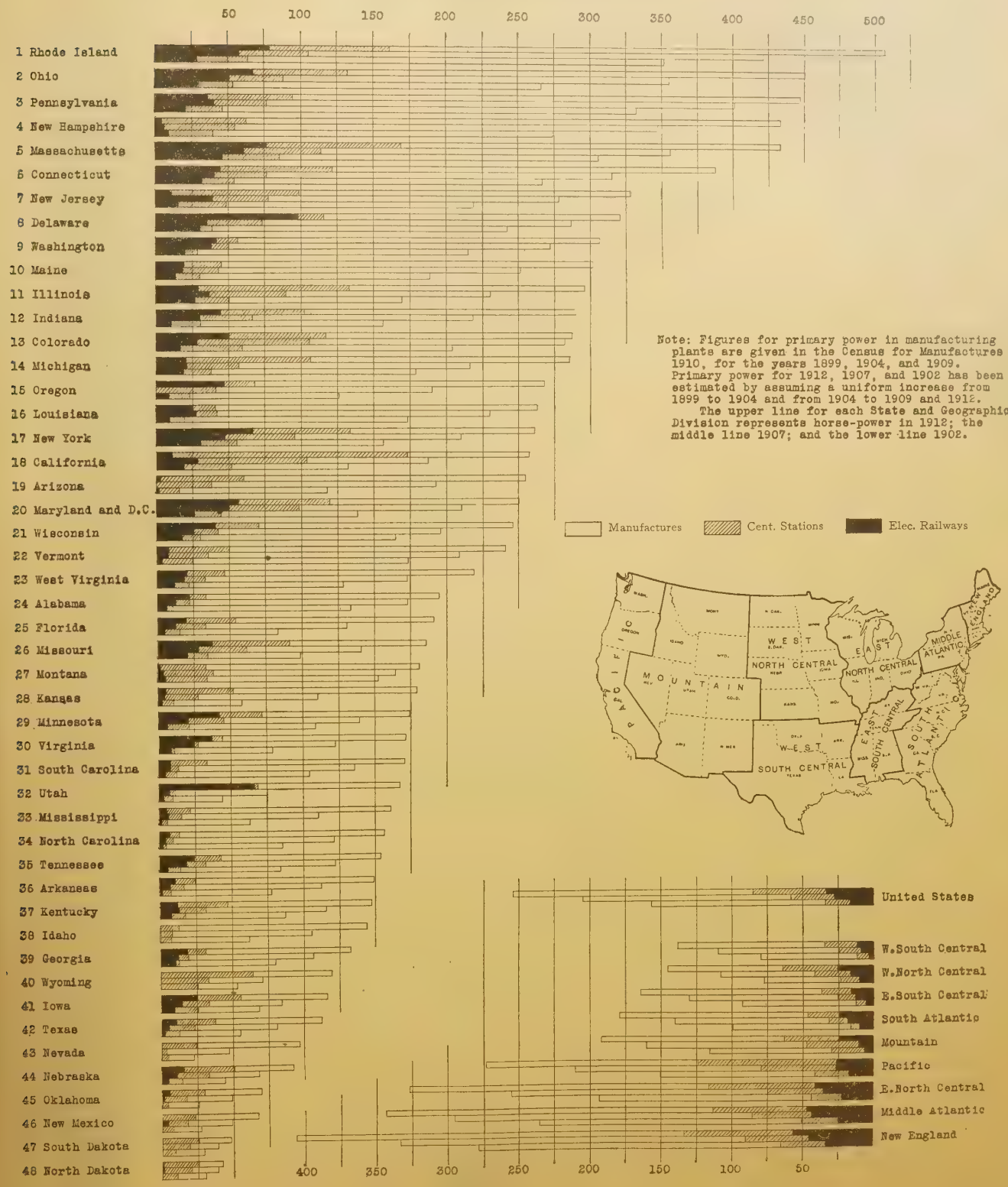
Note: Figures for primary power in manufacturing plants are given in the Census for Manufactures 1910, for the years 1899, 1904, and 1909. Primary power for 1912, 1907, and 1902 has been estimated by assuming a uniform increase from 1899 to 1904 and from 1904 to 1909 and 1912.

The upper line for each State represents horse-power in 1912, the middle line 1907, the lower line 1902. Similarly for the Geographic Divisions, the lower square represents horse-power in 1912, the middle square 1907, and the upper square 1902.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

STEAM POWER - INSTALLED CAPACITY PER THOUSAND OF POPULATION IN 1912, 1907 AND 1902

In Commercial and Municipal Central Stations, Street and Electric Railways, and Manufacturing Plants
By States and by Geographic Divisions
In Horse-Power



Note: Figures for primary power in manufacturing plants are given in the Census for Manufactures 1910, for the years 1899, 1904, and 1909. Primary power for 1912, 1907, and 1902 has been estimated by assuming a uniform increase from 1899 to 1904 and from 1904 to 1909 and 1912.

The upper line for each State and Geographic Division represents horse-power in 1912; the middle line 1907; and the lower line 1902.

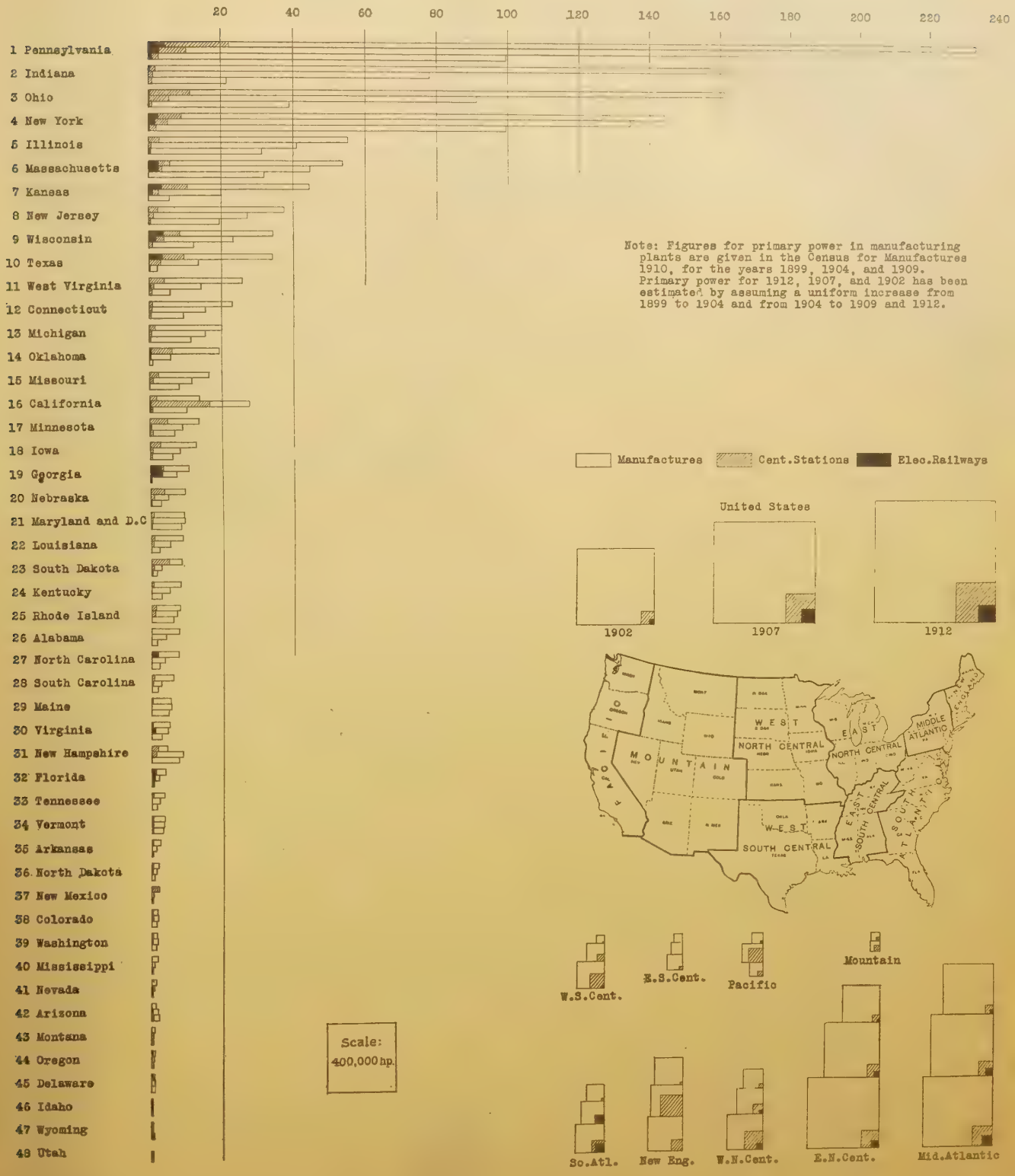
INCREASE IN STEAM POWER DEVELOPMENT, 1902 TO 1912

By States and by Geographic Divisions
In Per Cent of Power in 1902

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

GAS AND OIL ENGINES - INSTALLED CAPACITY IN 1912, 1907 AND 1902

In Commercial and Municipal Central Stations, Street and Electric Railways, and Manufacturing Plants
By States and by Geographic Divisions
In Thousands of Horse-Power

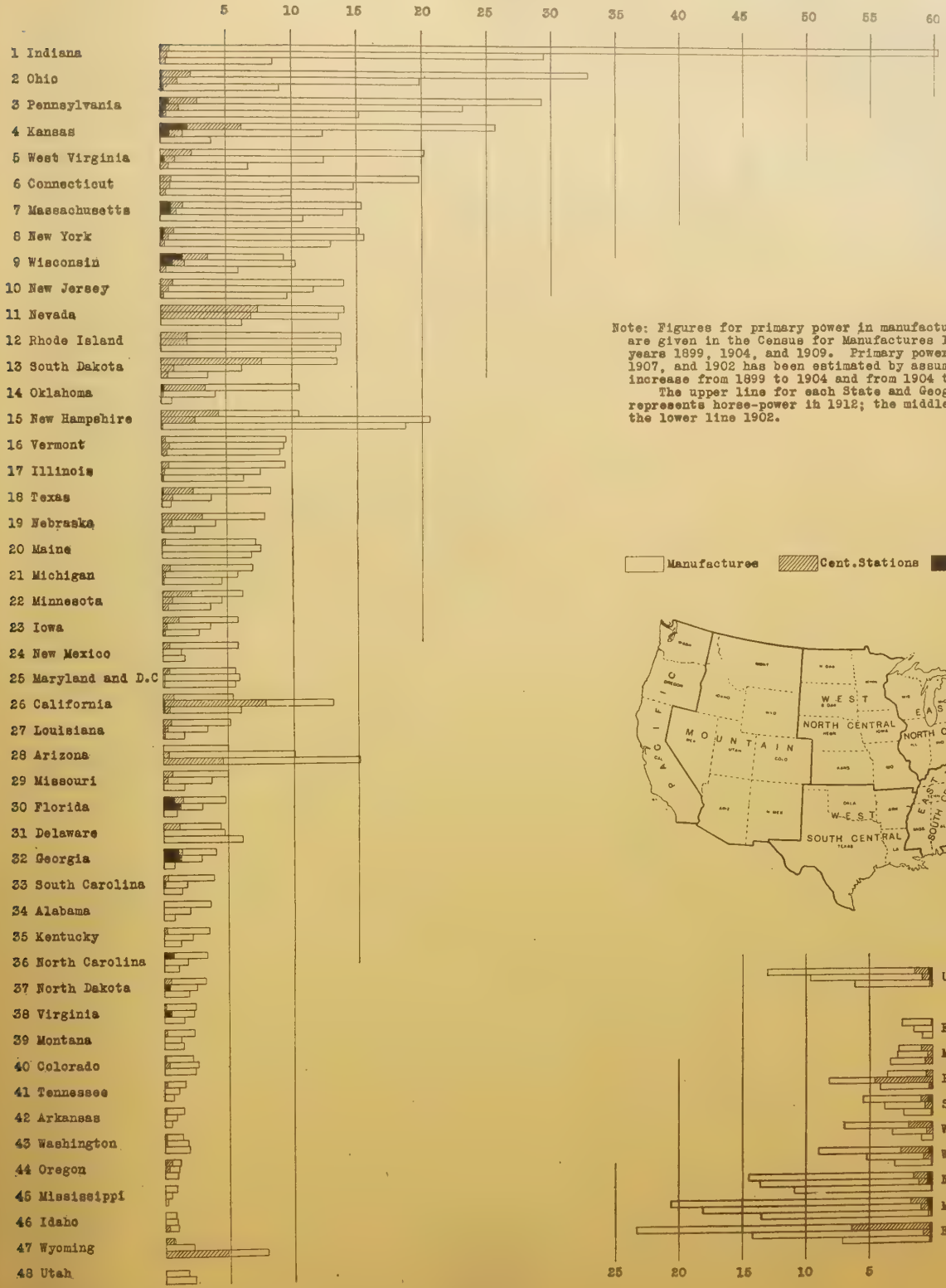


Note: Figures for primary power in manufacturing plants are given in the Census for Manufactures 1910, for the years 1899, 1904, and 1909. Primary power for 1912, 1907, and 1902 has been estimated by assuming a uniform increase from 1899 to 1904 and from 1904 to 1909 and 1912.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

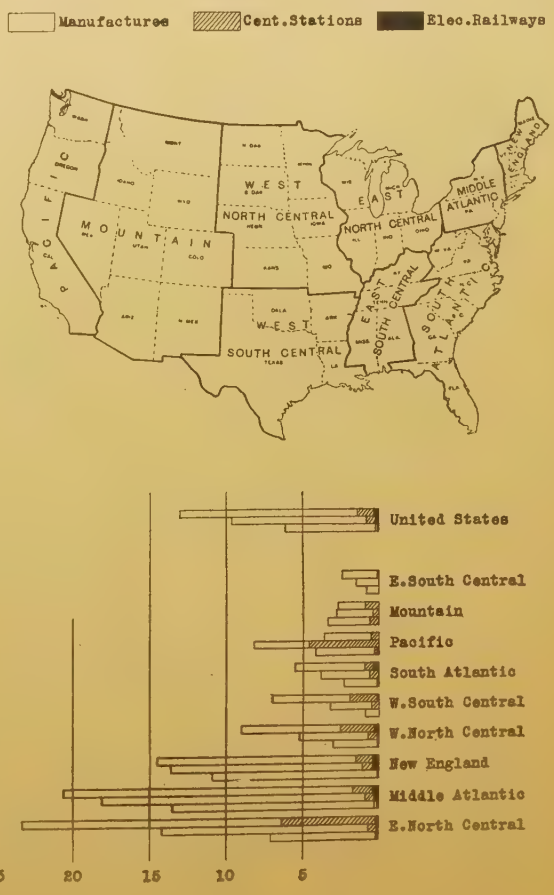
GAS AND OIL ENGINES - INSTALLED CAPACITY PER THOUSAND OF POPULATION IN 1912, 1907 AND 1902

In Commercial and Municipal Central Stations, Street and Electric Railways, and Manufacturing Plants
By States and by Geographic Divisions
In Horse-Power



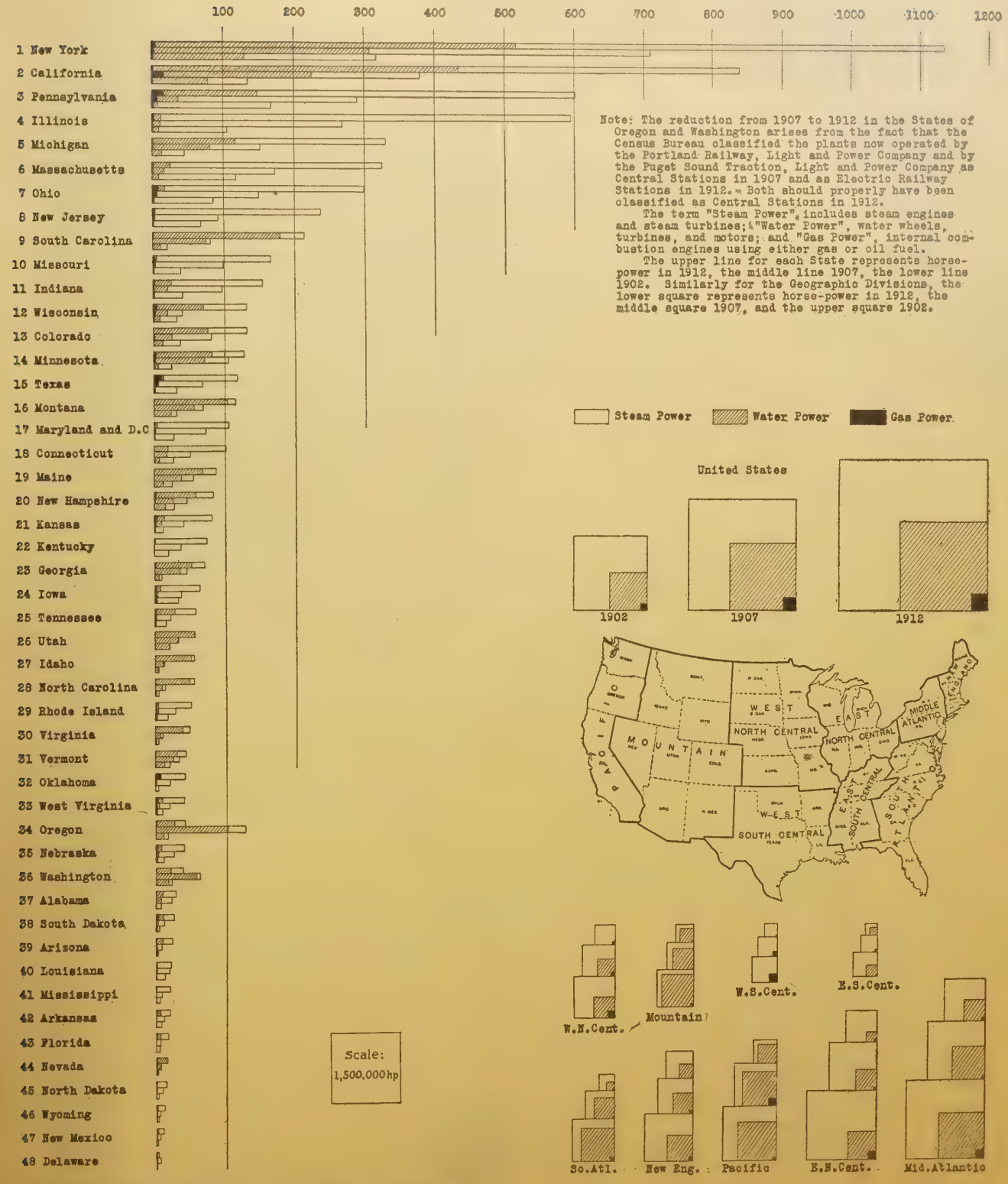
Note: Figures for primary power in manufacturing plants are given in the Census for Manufactures 1910, for the years 1899, 1904, and 1909. Primary power for 1912, 1907, and 1902 has been estimated by assuming a uniform increase from 1899 to 1904 and from 1904 to 1909 and 1912.

The upper line for each State and Geographic Division represents horse-power in 1912; the middle line 1907; and the lower line 1902.



To accompany report on Sen. Res. No. 544, 62nd. Cong., 3rd. Sess.

Primary Power in 1912, 1907 and 1902: - Steam Power, Water Power, and Gas Power
By States and by Geographic Divisions
In Thousands of Horse-Power



Note: The reduction from 1907 to 1912 in the States of Oregon and Washington arises from the fact that the Census Bureau classified the plants now operated by the Portland Railway, Light and Power Company and by the Puget Sound Traction, Light and Power Company as Central Stations in 1907 and as Electric Railway Stations in 1912. Both should properly have been classified as Central Stations in 1912.

The term "Steam Power", includes steam engines and steam turbines; "Water Power", water wheels, turbines, and motors; and "Gas Power", internal combustion engines using either gas or oil fuel.

The upper line for each State represents horse-power in 1912, the middle line 1907, the lower line 1902. Similarly for the Geographic Divisions, the lower square represents horse-power in 1912, the middle square 1907, and the upper square 1902.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

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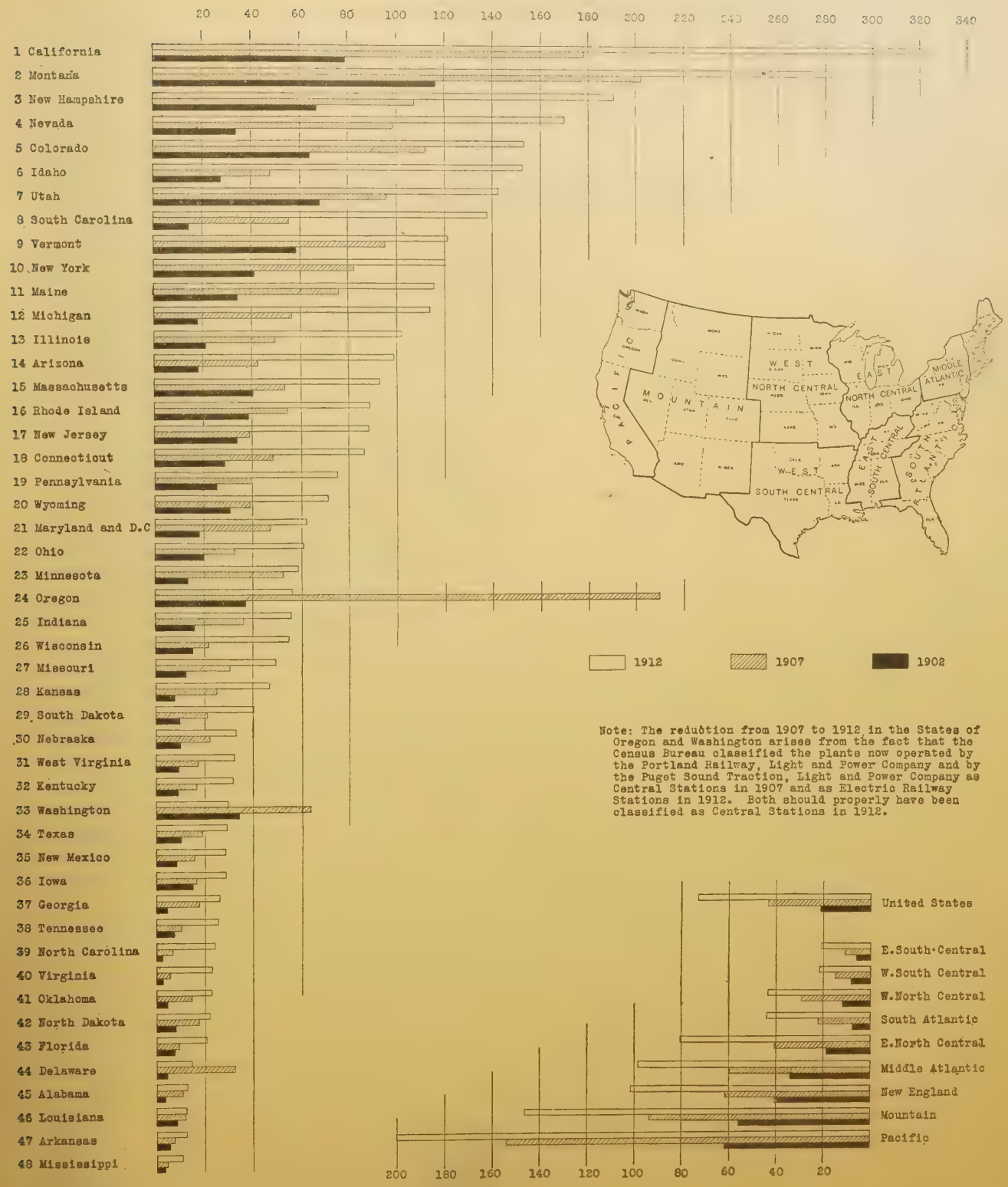
COMMERCIAL CENTRAL STATIONS

Primary Power Per Thousand of Population in 1912, 1907 and 1902
By States and by Geographic Divisions
In Horse-Power



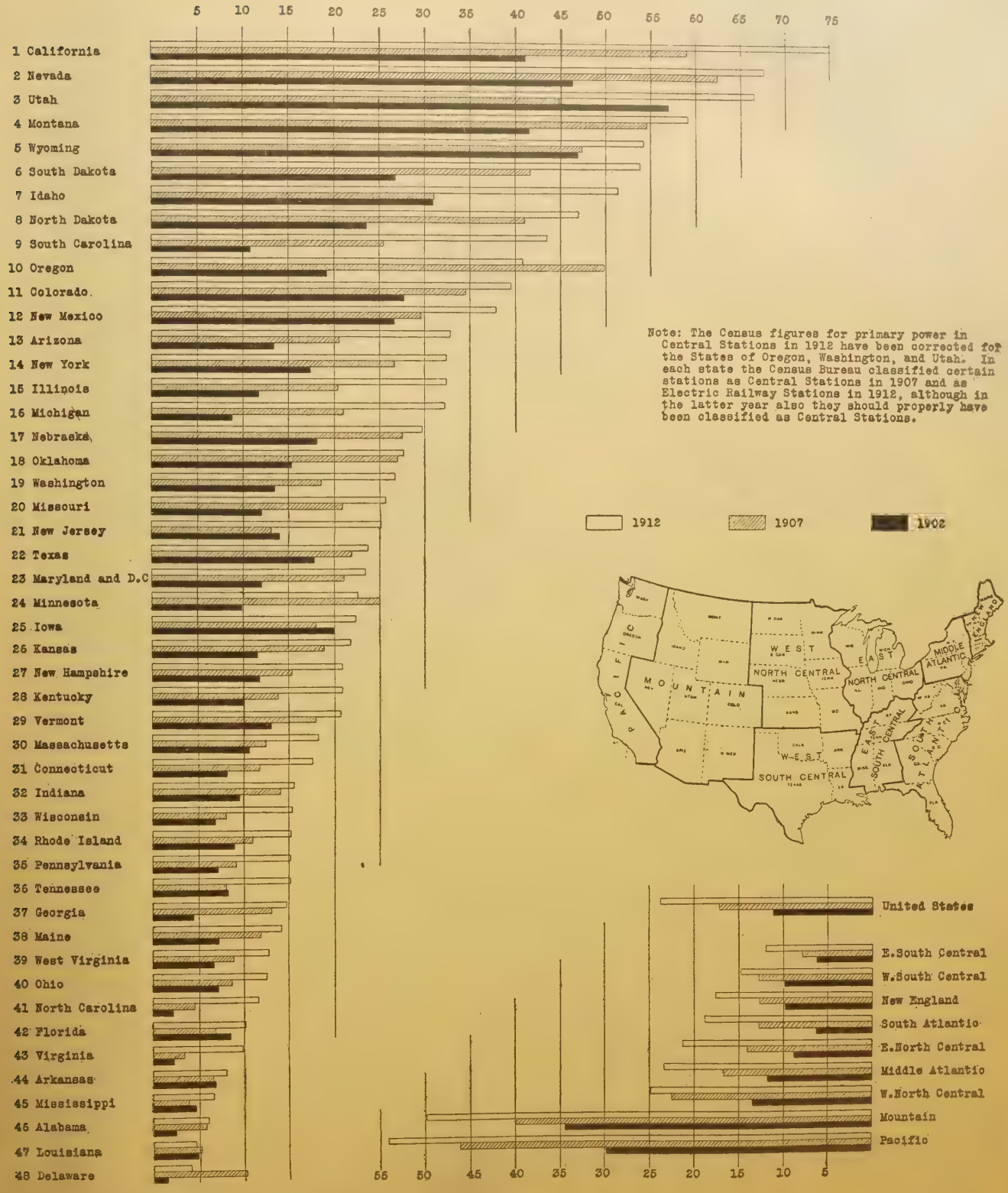
Note: The reduction from 1907 to 1912 in the States of Oregon and Washington arises from the fact that the Census Bureau classified the plants now operated by the Portland Railway, Light and Power Company and by the Puget Sound Traction, Light and Power Company as Central Stations in 1907 and as Electric Railway Stations in 1912. Both should properly have been classified as Central Stations in 1912.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

RATIO OF CENTRAL STATION PRIMARY POWER TO TOTAL PRIMARY POWER, 1912, 1907 AND 1902

PLATE 13

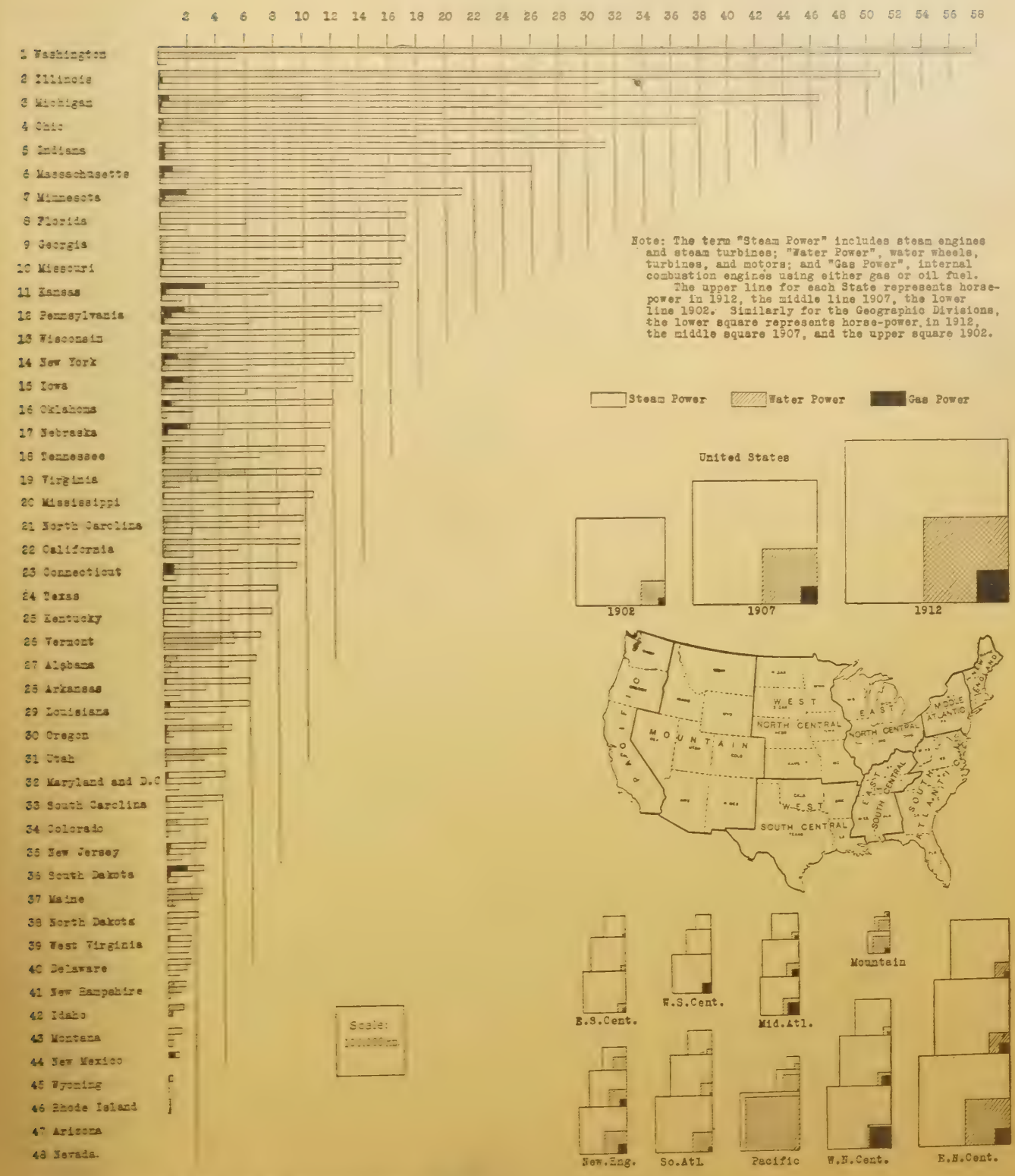
By States and by Geographic Divisions
In Per Cent of Total Power



Note: The Census figures for primary power in Central Stations in 1912 have been corrected for the States of Oregon, Washington, and Utah. In each state the Census Bureau classified certain stations as Central Stations in 1907 and as Electric Railway Stations in 1912, although in the latter year also they should properly have been classified as Central Stations.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

Primary Power in 1912, 1907 and 1902: - Steam Power, Water Power, and Gas Power
By States and by Geographic Divisions
In Thousands of Horse-Power

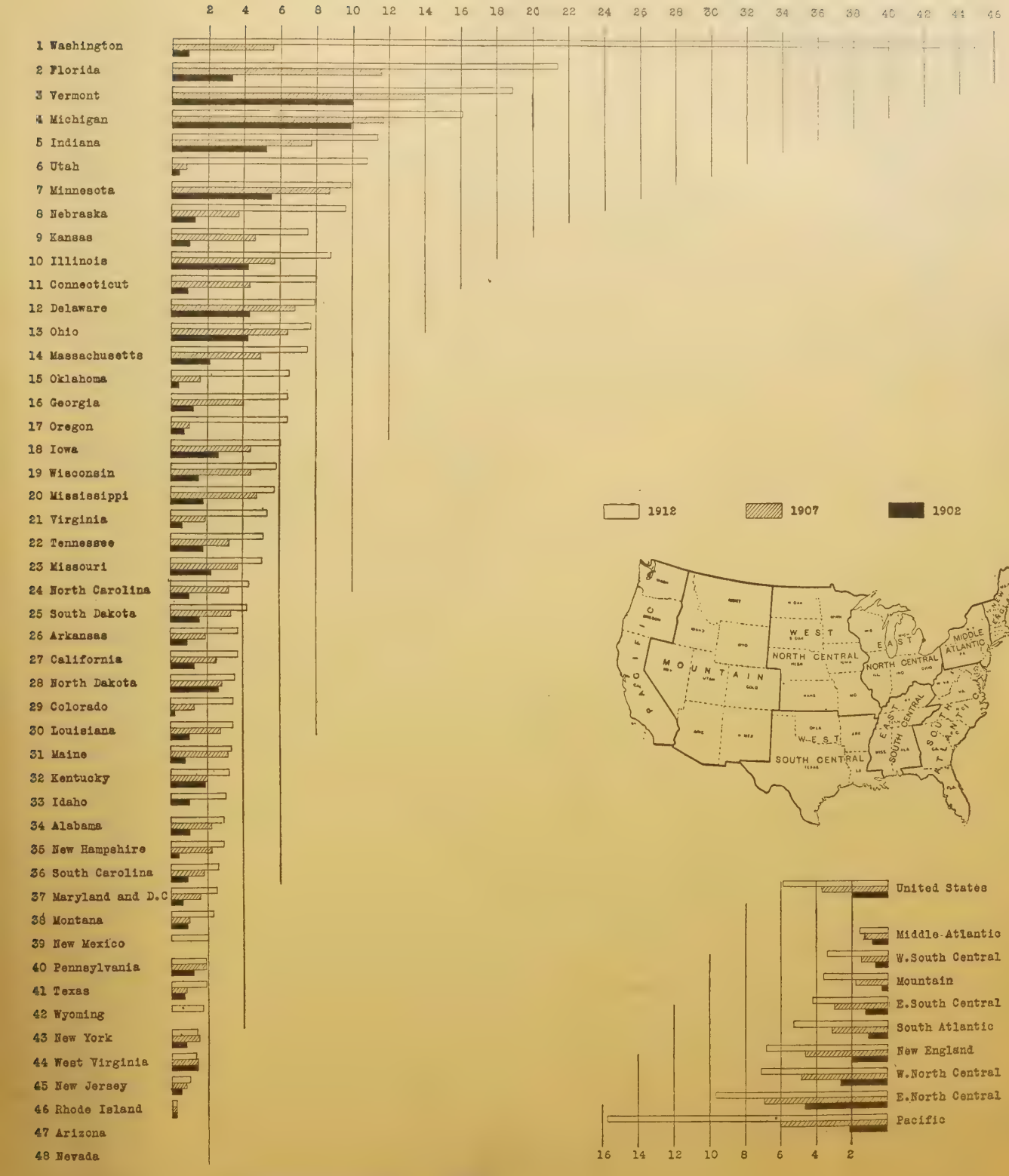


Note: The term "Steam Power" includes steam engines and steam turbines; "Water Power", water wheels, turbines, and motors; and "Gas Power", internal combustion engines using either gas or oil fuel.

The upper line for each State represents horse-power in 1912, the middle line 1907, the lower line 1902. Similarly for the Geographic Divisions, the lower square represents horse-power in 1912, the middle square 1907, and the upper square 1902.

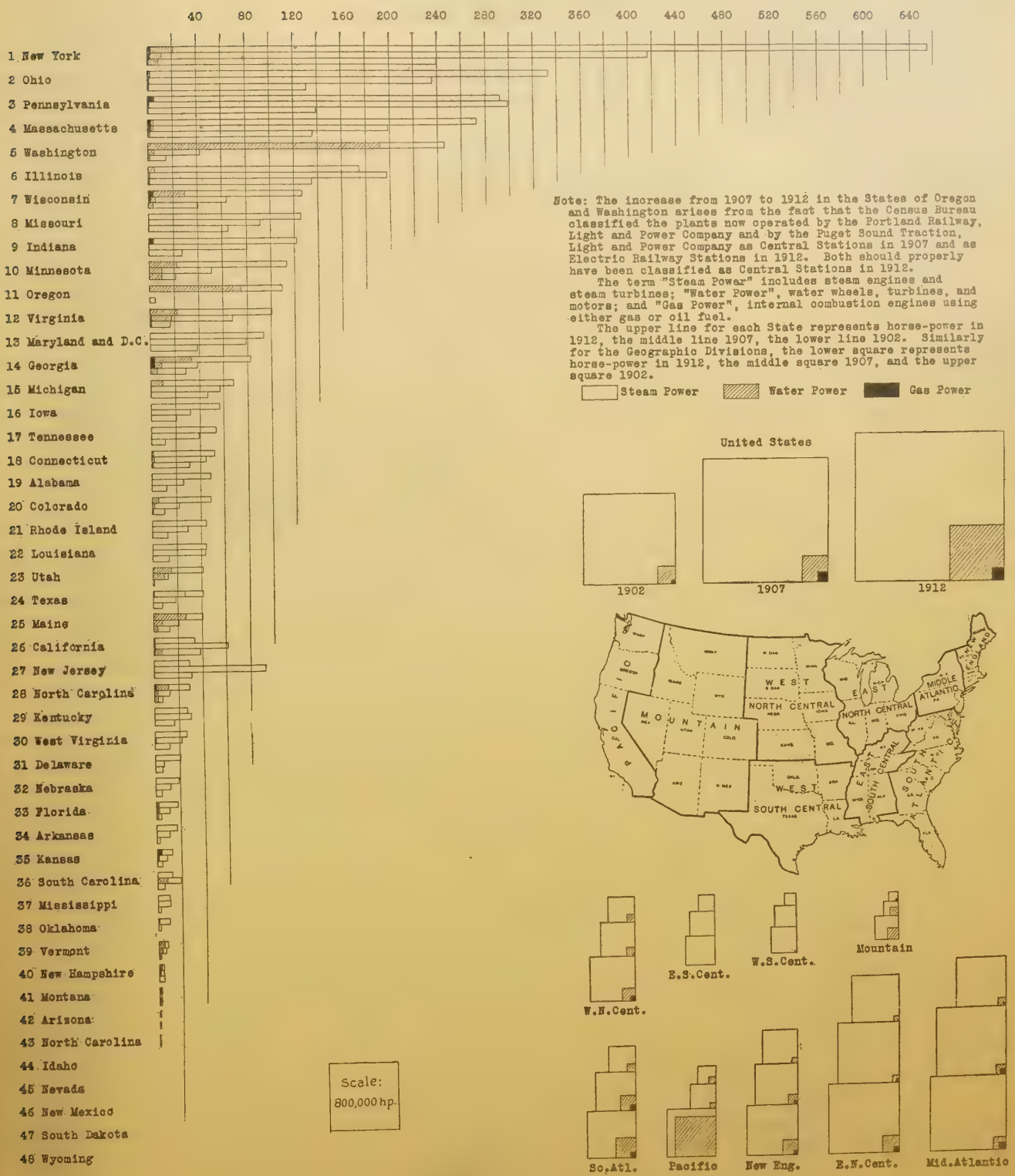
To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

Primary Power Per Thousand of Population in 1912, 1907 and 1902
By States and by Geographic Divisions
In Horse-Power



To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

Primary Power in 1912, 1907 and 1902: - Steam Power, Water Power, and Gas Power
By States and by Geographic Divisions
In Thousands of Horse-Power



Note: The increase from 1907 to 1912 in the States of Oregon and Washington arises from the fact that the Census Bureau classified the plants now operated by the Portland Railway, Light and Power Company and by the Puget Sound Traction, Light and Power Company as Central Stations in 1907 and as Electric Railway Stations in 1912. Both should properly have been classified as Central Stations in 1912.

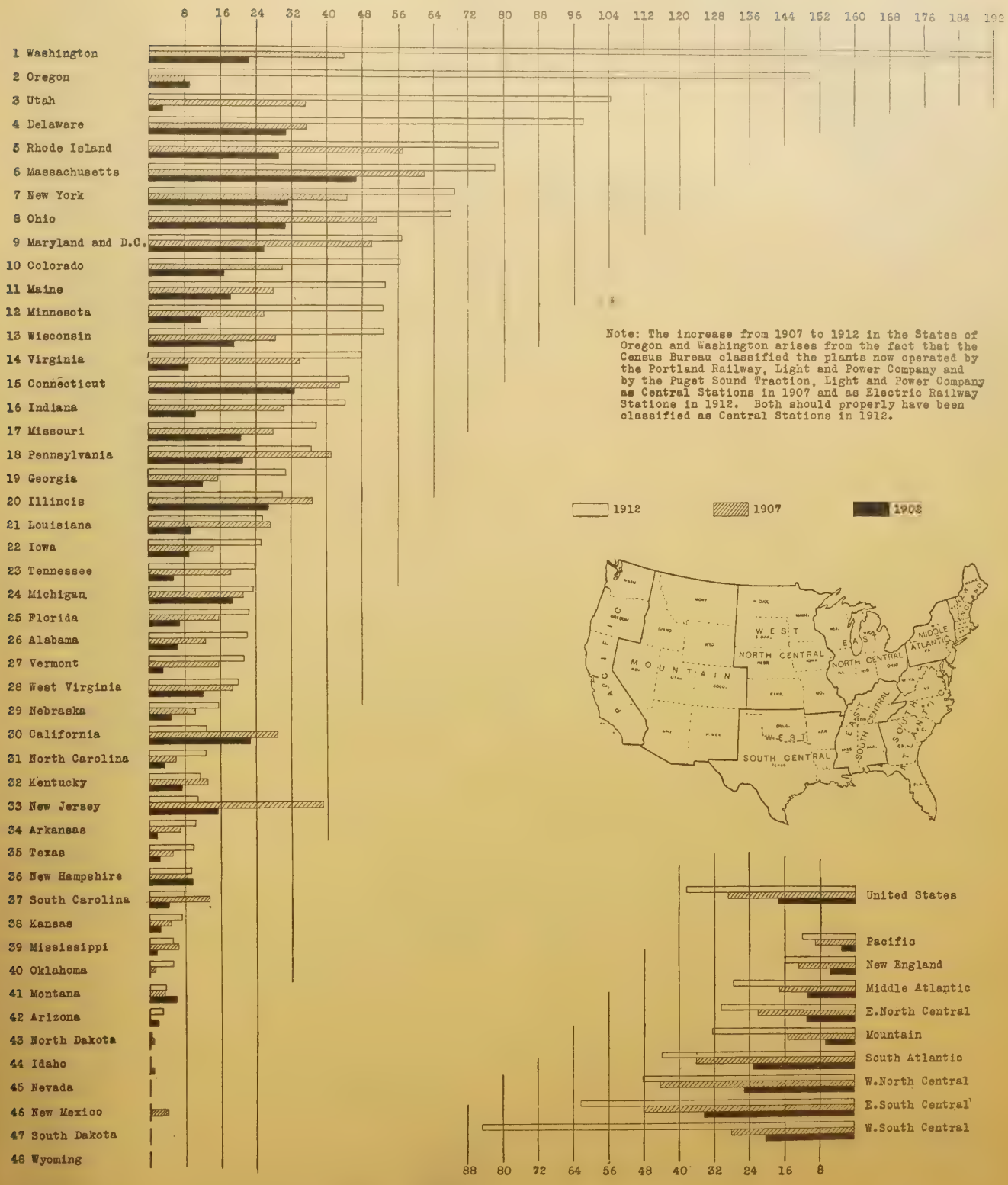
The term "Steam Power" includes steam engines and steam turbines; "Water Power", water wheels, turbines, and motors; and "Gas Power", internal combustion engines using either gas or oil fuel.

The upper line for each State represents horse-power in 1912, the middle line 1907, the lower line 1902. Similarly for the Geographic Divisions, the lower square represents horse-power in 1912, the middle square 1907, and the upper square 1902.

Steam Power Water Power Gas Power

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

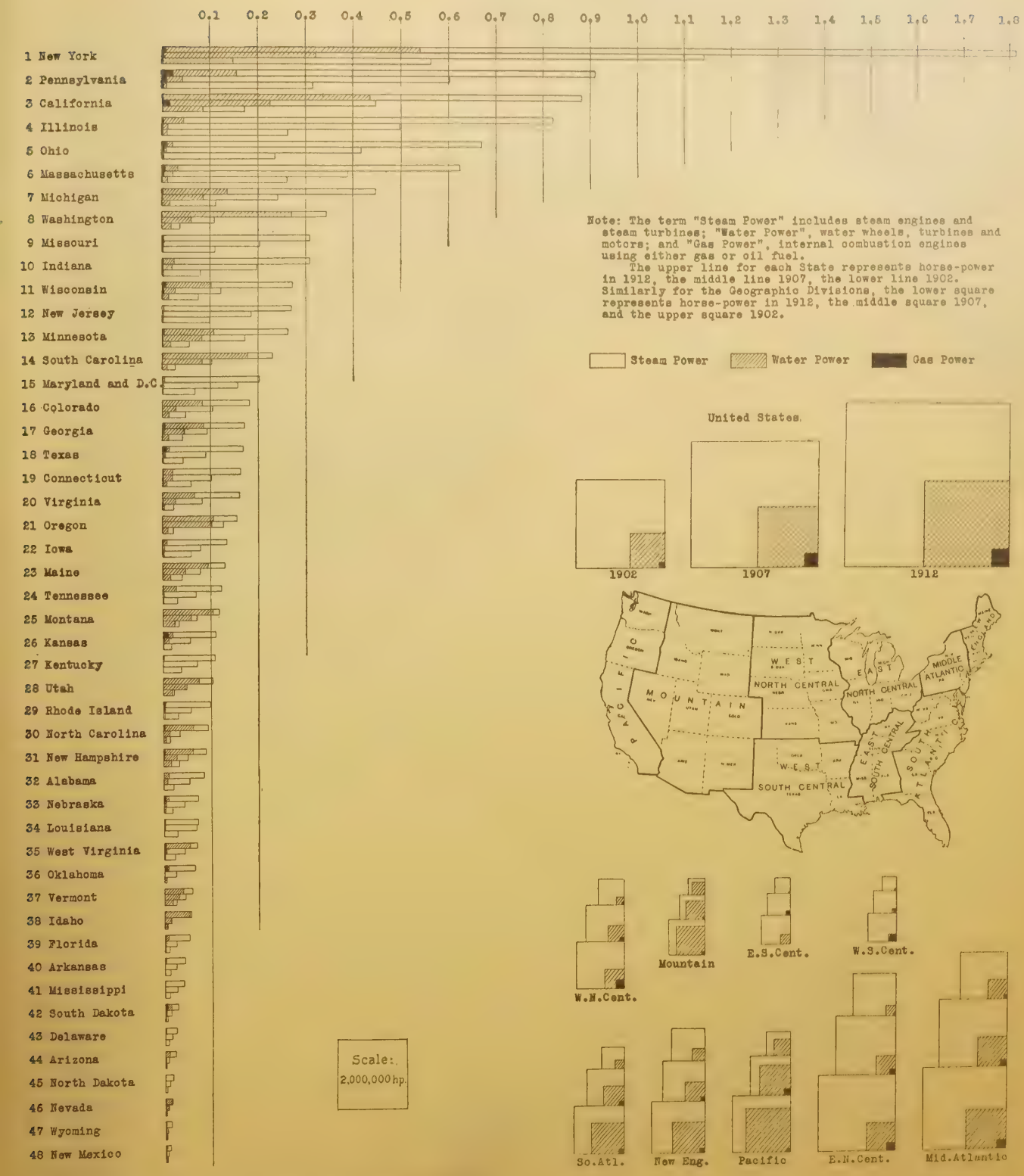
Primary Power Per Thousand of Population in 1912, 1907 and 1902
By States and by Geographic Divisions
In Horse-Power



Note: The increase from 1907 to 1912 in the States of Oregon and Washington arises from the fact that the Census Bureau classified the plants now operated by the Portland Railway, Light and Power Company and by the Puget Sound Traction, Light and Power Company as Central Stations in 1907 and as Electric Railway Stations in 1912. Both should properly have been classified as Central Stations in 1912.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

Primary Power in 1912, 1907 and 1902: - Steam Power, Water Power, and Gas Power
By States and by Geographic Divisions
In Millions of Horse-Power



Note: The term "Steam Power" includes steam engines and steam turbines; "Water Power", water wheels, turbines and motors; and "Gas Power", internal combustion engines using either gas or oil fuel.

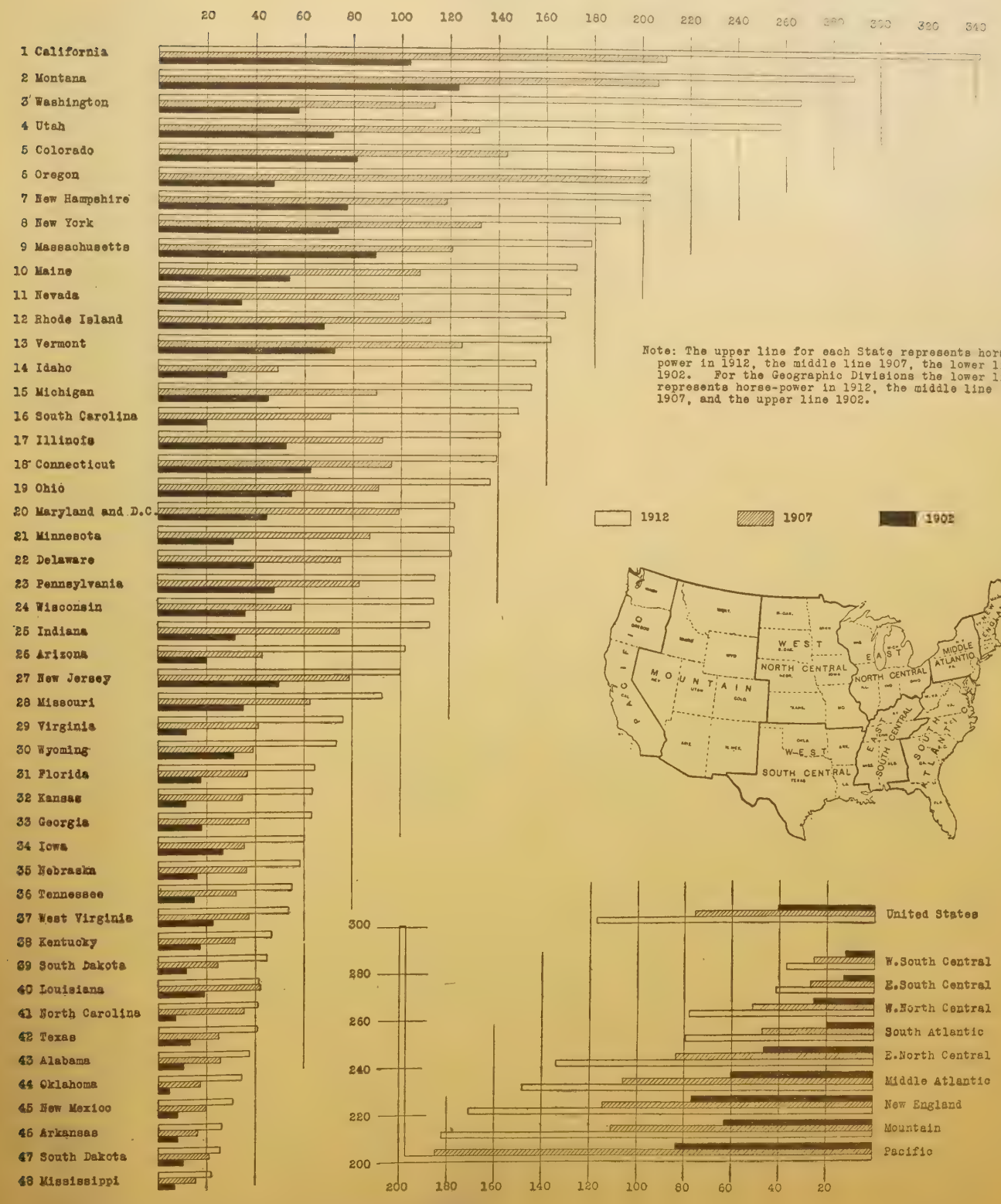
The upper line for each State represents horse-power in 1912, the middle line 1907, the lower line 1902. Similarly for the Geographic Divisions, the lower square represents horse-power in 1912, the middle square 1907, and the upper square 1902.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

COMMERCIAL AND MUNICIPAL CENTRAL STATIONS AND STREET AND ELECTRIC RAILWAYS

PLATE 25

Primary Power Per Thousand of Population in 1912, 1907 and 1902
By States and by Geographic Divisions
In Horse-Power



Note: The upper line for each State represents horse-power in 1912, the middle line 1907, the lower line 1902. For the Geographic Divisions the lower line represents horse-power in 1912, the middle line 1907, and the upper line 1902.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

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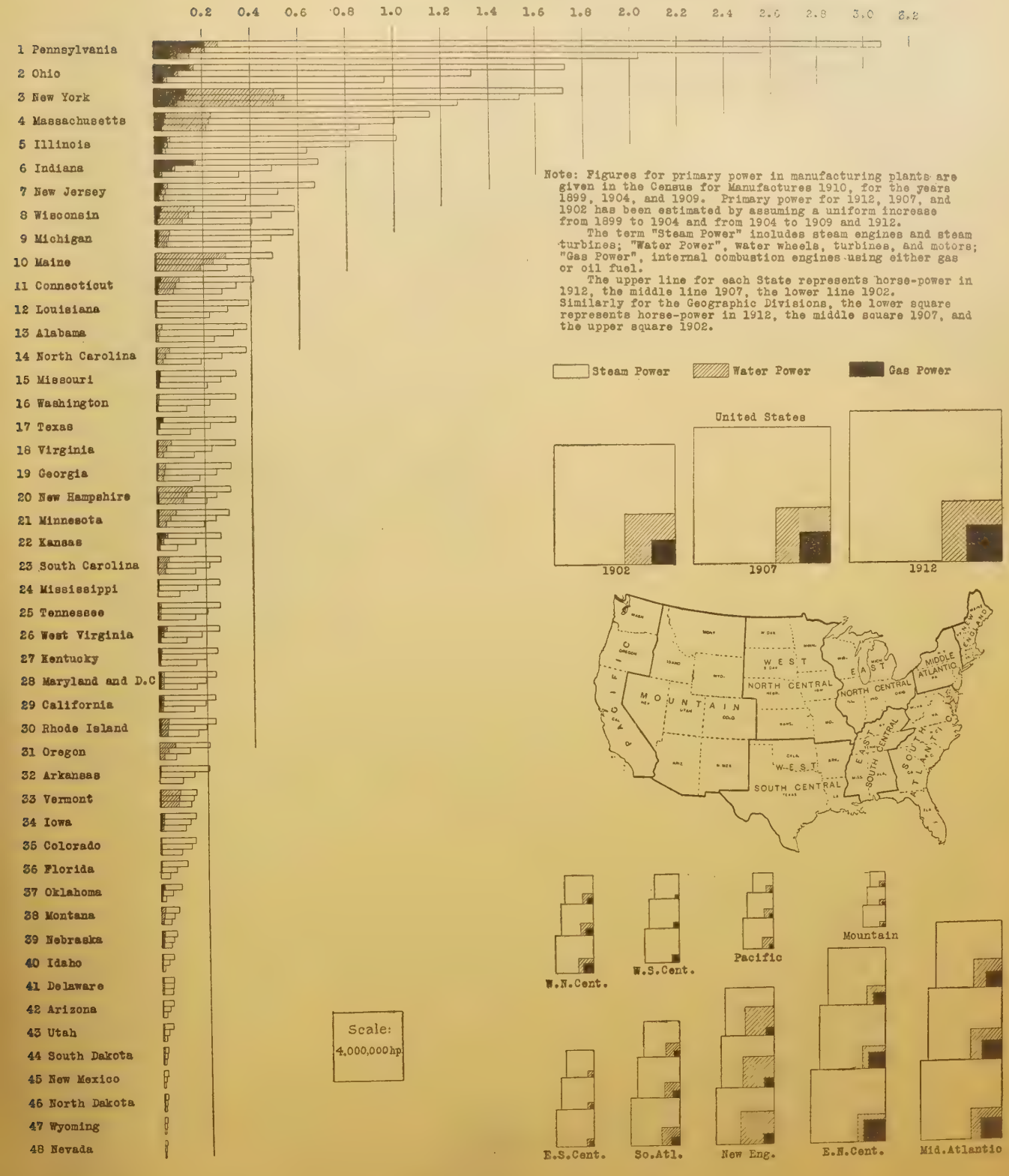
Primary Power in 1912, 1907 and 1902: - Steam Power, Water Power, and Gas Power
By States and by Geographic Divisions
In Millions of Horse-Power

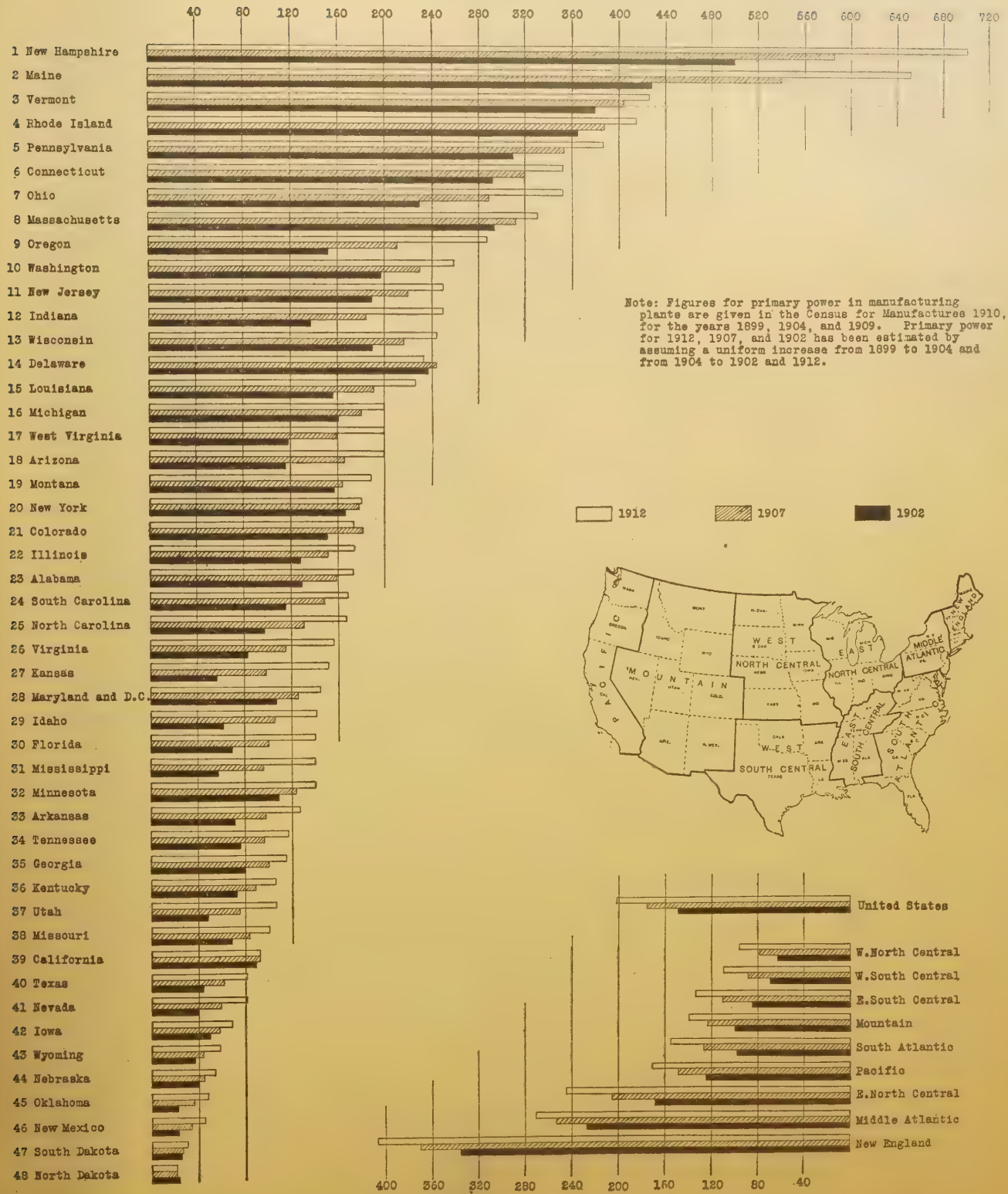


Note: Figures for primary power in manufacturing plants are given in the Census for Manufactures 1910, for the years 1899, 1904, and 1909. Primary power for 1912, 1907, and 1902 has been estimated by assuming a uniform increase from 1899 to 1904 and from 1904 to 1909 and 1912.

The term "Steam Power" includes steam engines and steam turbines; "Water Power", water wheels, turbines, and motors; "Gas Power", internal combustion engines using either gas or oil fuel.

The upper line for each State represents horse-power in 1912, the middle line 1907, the lower line 1902. Similarly for the Geographic Divisions, the lower square represents horse-power in 1912, the middle square 1907, and the upper square 1902.

Primary Power Per Thousand of Population in 1912, 1907 and 1902
By States and by Geographic Divisions
In Horse-Power



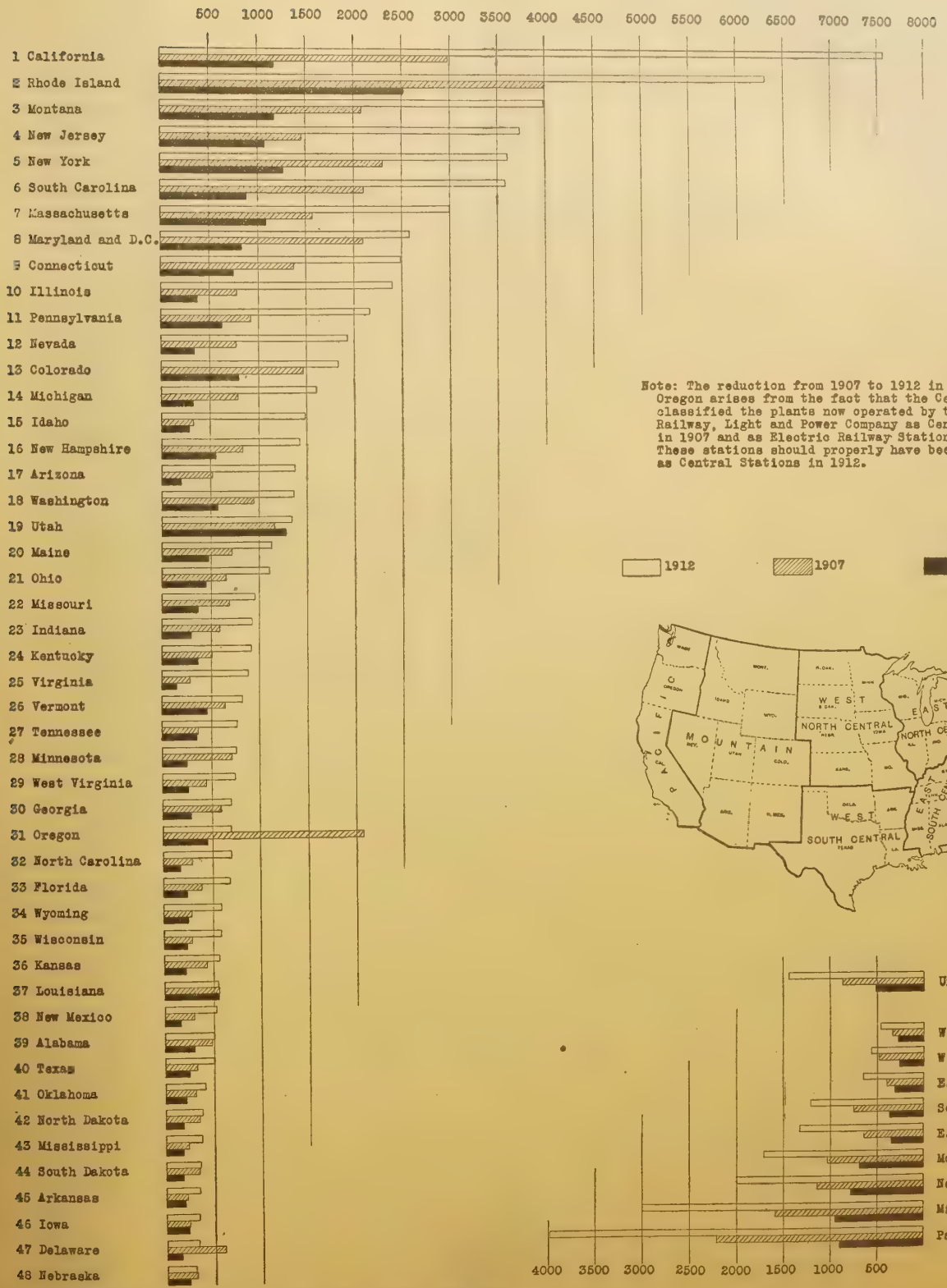
Note: Figures for primary power in manufacturing plants are given in the Census for Manufactures 1910, for the years 1899, 1904, and 1909. Primary power for 1912, 1907, and 1902 has been estimated by assuming a uniform increase from 1899 to 1904 and from 1904 to 1902 and 1912.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

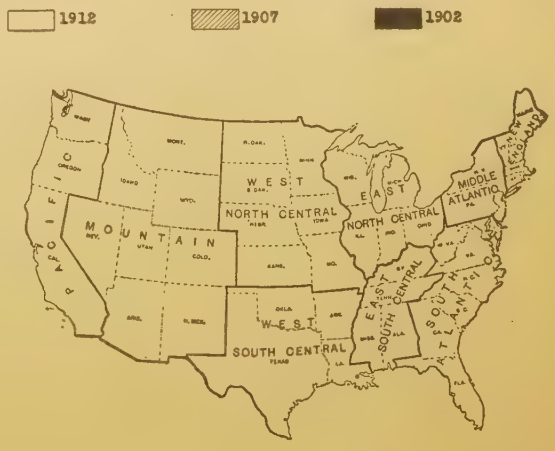
CENTRAL ELECTRIC STATIONS: - AVERAGE INSTALLED CAPACITY IN 1912, 1907 AND 1902

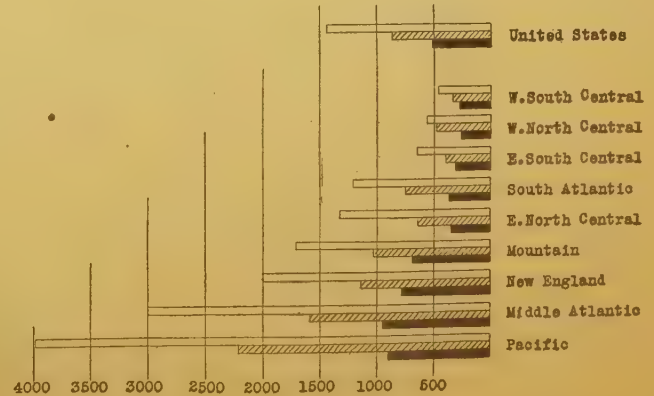
PLATE 24

By States and by Geographic Divisions
In Horse-Power



Note: The reduction from 1907 to 1912 in the State of Oregon arises from the fact that the Census Bureau classified the plants now operated by the Portland Railway, Light and Power Company as Central Stations in 1907 and as Electric Railway Stations in 1912. These stations should properly have been classified as Central Stations in 1912.

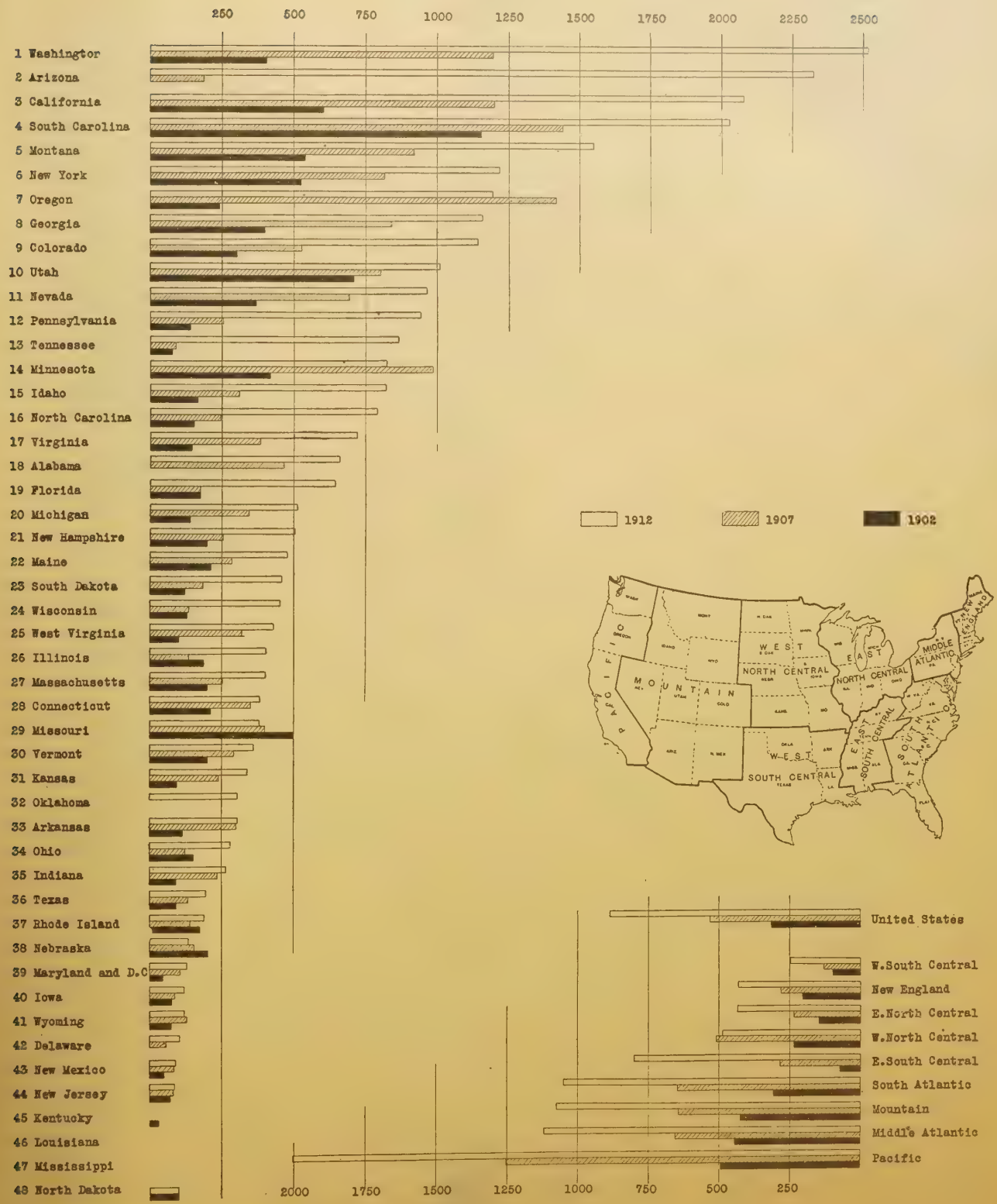




To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

WATER WHEELS - CAPACITIES IN 1912, 1907 AND 1902

Commercial and Municipal Central Stations and Street and Electric Railways
By States and by Geographic Divisions
In Horse-Power

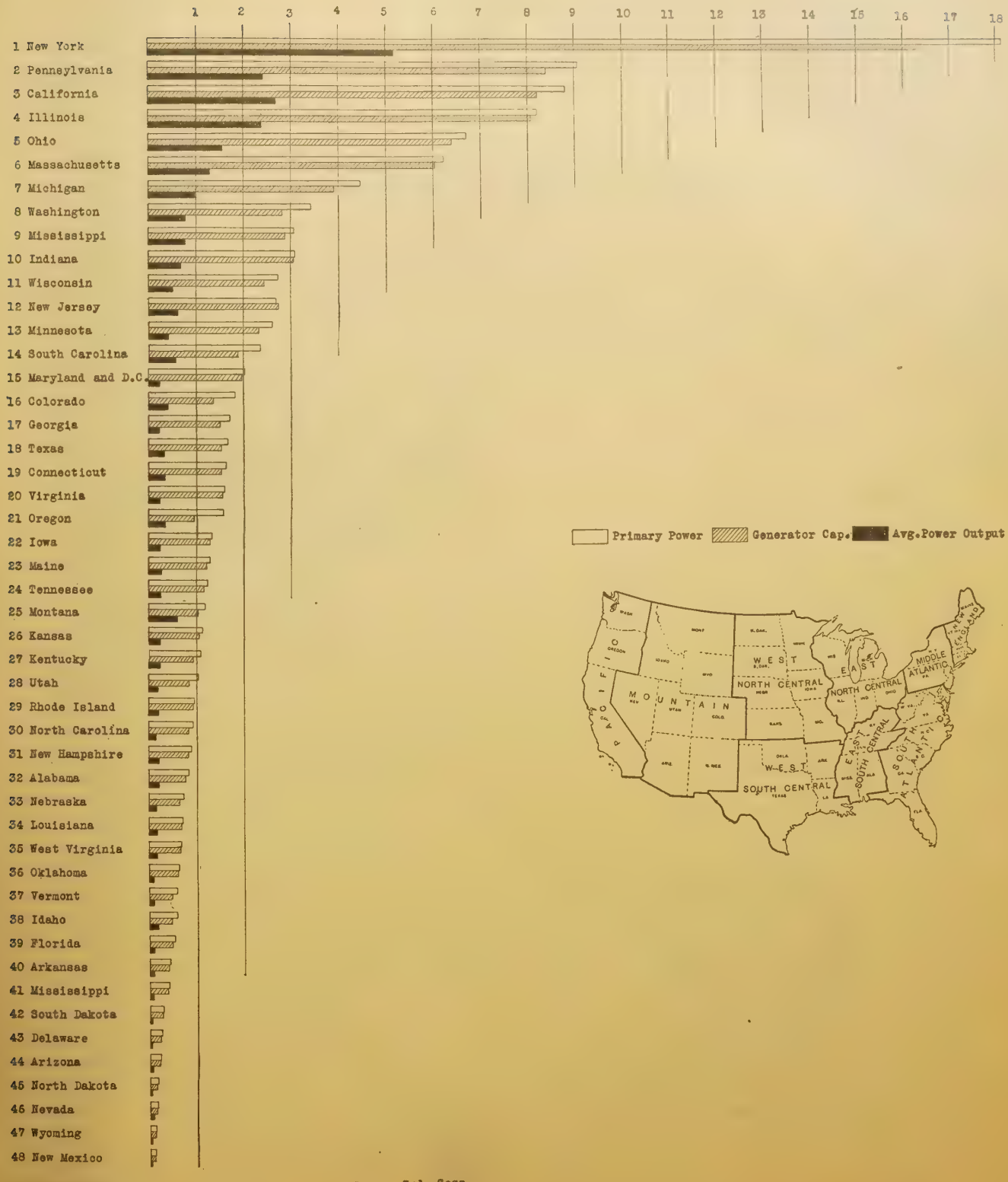


To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

RELATION BETWEEN PRIMARY POWER, GENERATOR CAPACITY, AND AVERAGE POWER OUTPUT IN 1912

PLATE 30

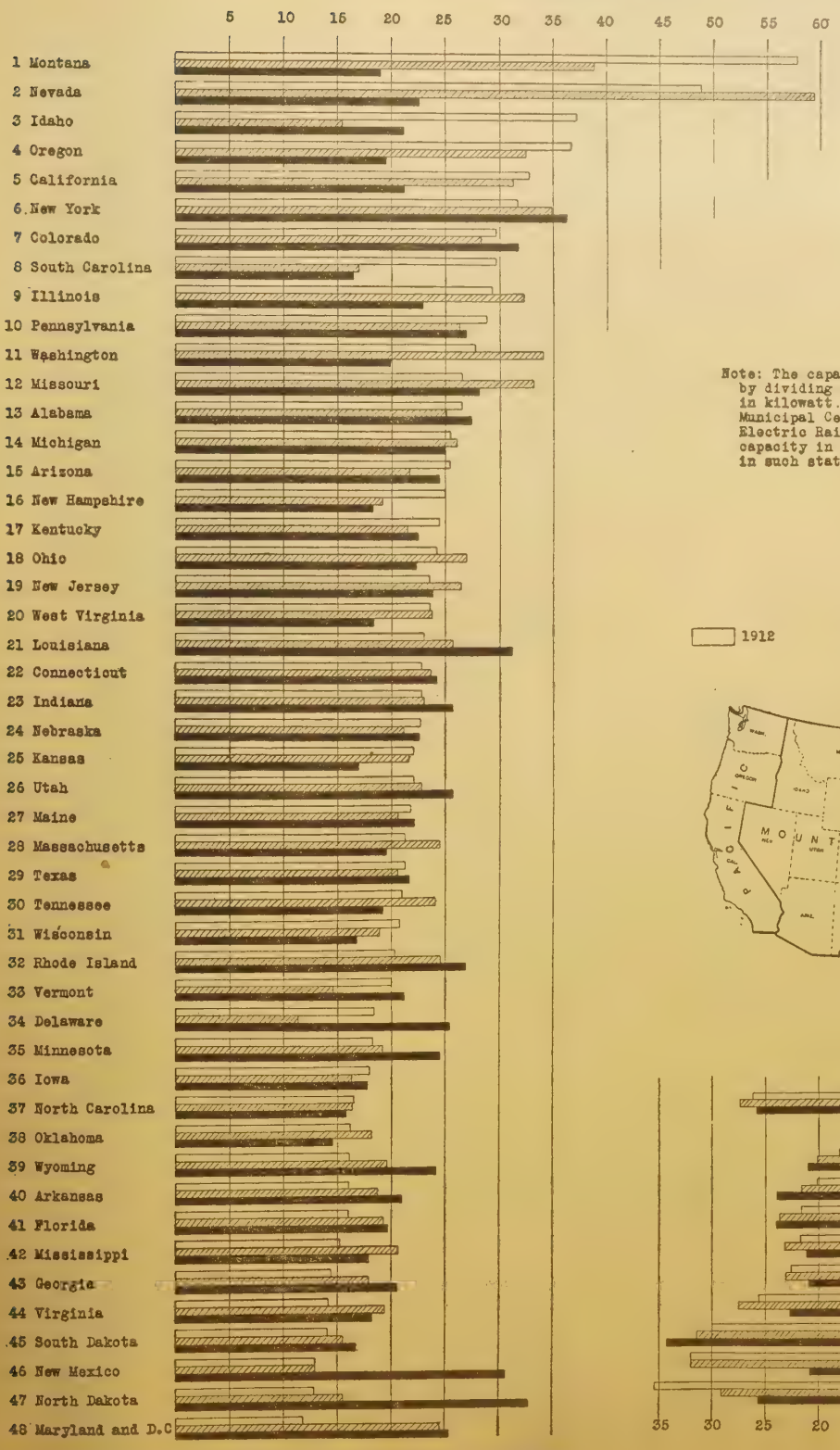
In Commercial and Municipal Central Stations and Street and Electric Railways
By States and by Geographic Divisions
In Hundreds of Thousands of Horse-Power



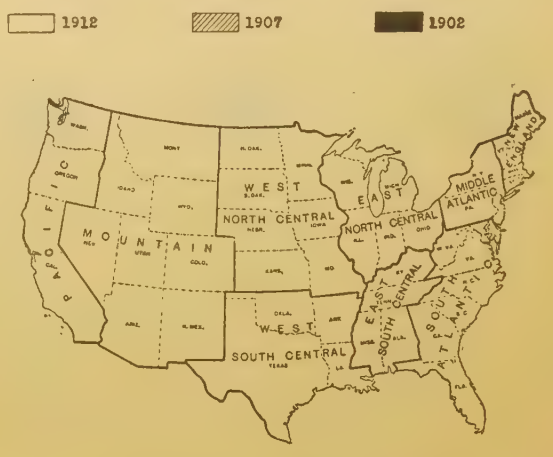
To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

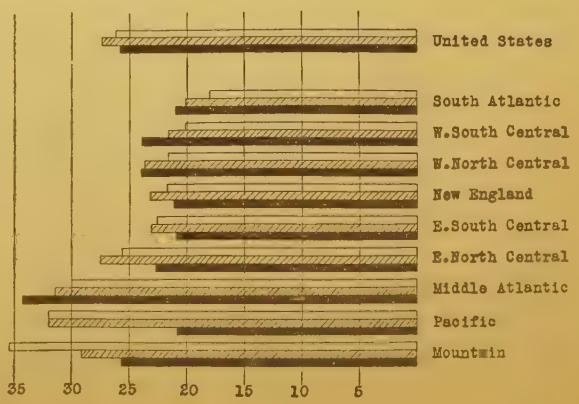
CAPACITY LOAD FACTORS, 1912, 1907, 1902

Commercial and Municipal Central Stations and Street and Electric Railways
By States and by Geographic Divisions
In Per Cent



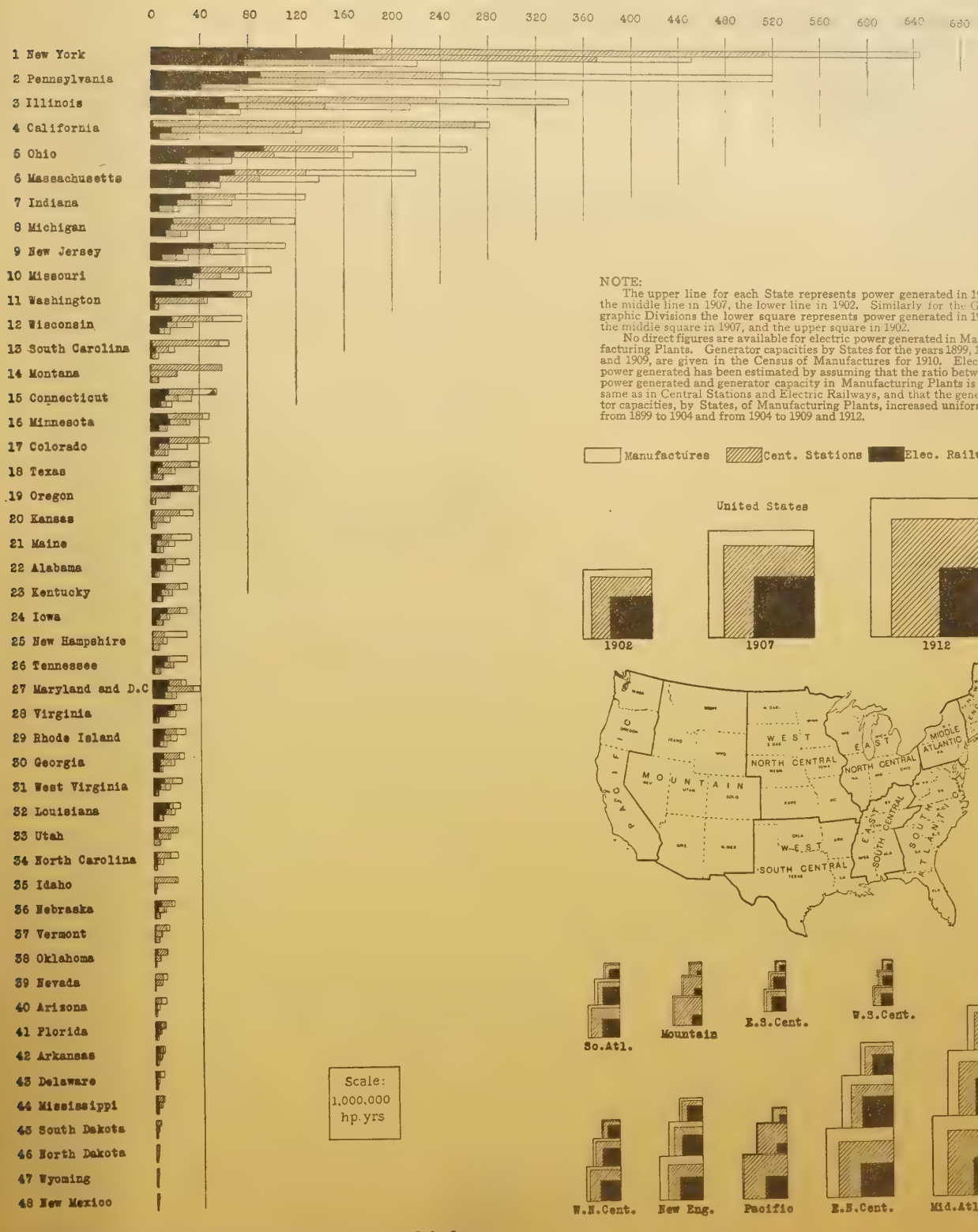
Note: The capacity load factors have been computed by dividing the combined average annual output in kilowatt years of the Commercial and Municipal Central Stations and the Street and Electric Railway Stations by the combined capacity in kilowatts of the electric generators in such stations.





To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

Electric Power Generated in 1912, 1907 and 1902
By States and by Geographic Divisions
In Thousands of Horse-Power Years



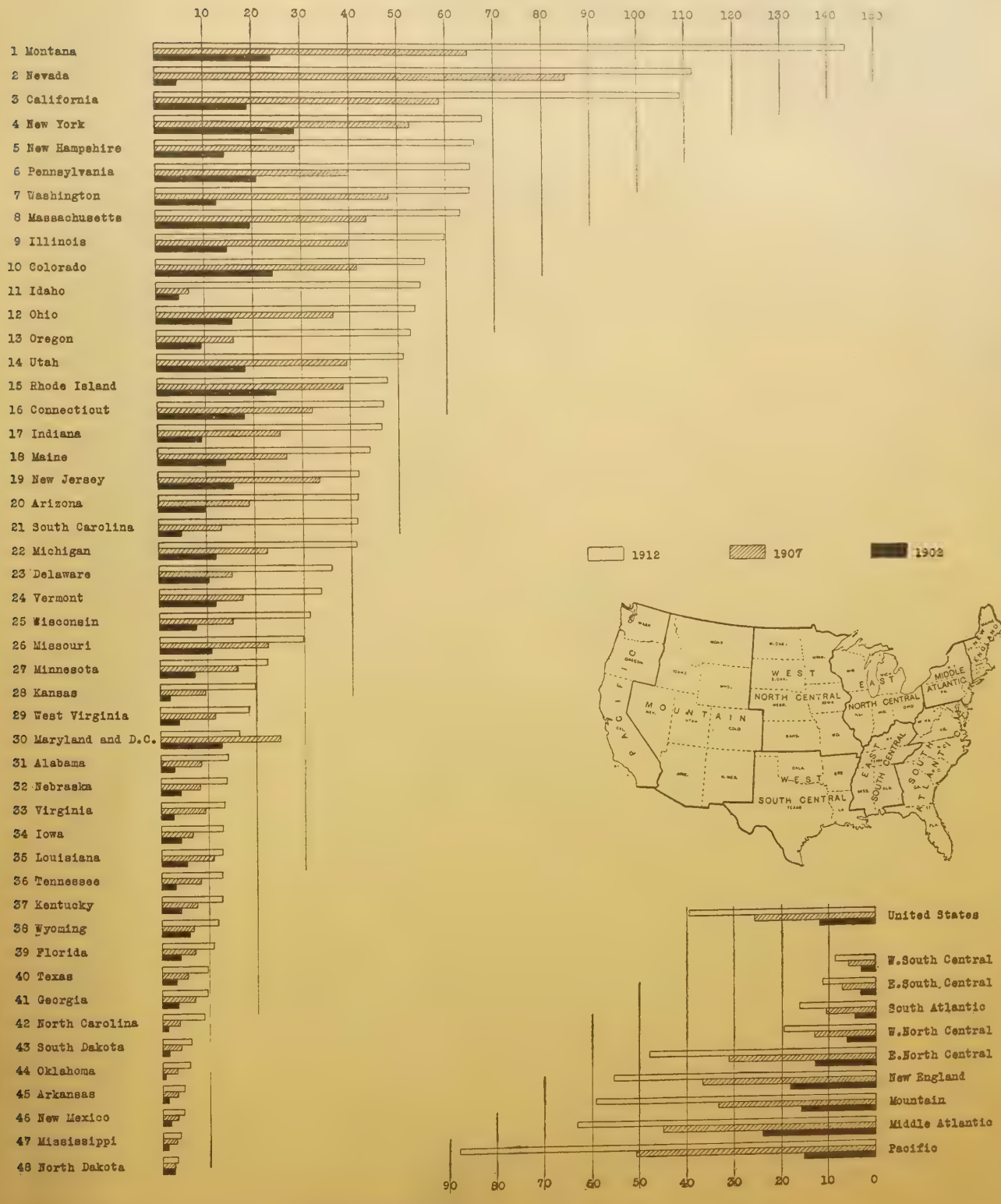
NOTE:

The upper line for each State represents power generated in 1912, the middle line in 1907, the lower line in 1902. Similarly for the Geographic Divisions the lower square represents power generated in 1912, the middle square in 1907, and the upper square in 1902.

No direct figures are available for electric power generated in Manufacturing Plants. Generator capacities by States for the years 1899, 1904 and 1909, are given in the Census of Manufactures for 1910. Electric power generated has been estimated by assuming that the ratio between power generated and generator capacity in Manufacturing Plants is the same as in Central Stations and Electric Railways, and that the generator capacities, by States, of Manufacturing Plants, increased uniformly from 1899 to 1904 and from 1904 to 1909 and 1912.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

Electric Power Generated in 1912, 1907 and 1902, Per Thousand of Population
By States and by Geographic Divisions
In Horse-Power Years



To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

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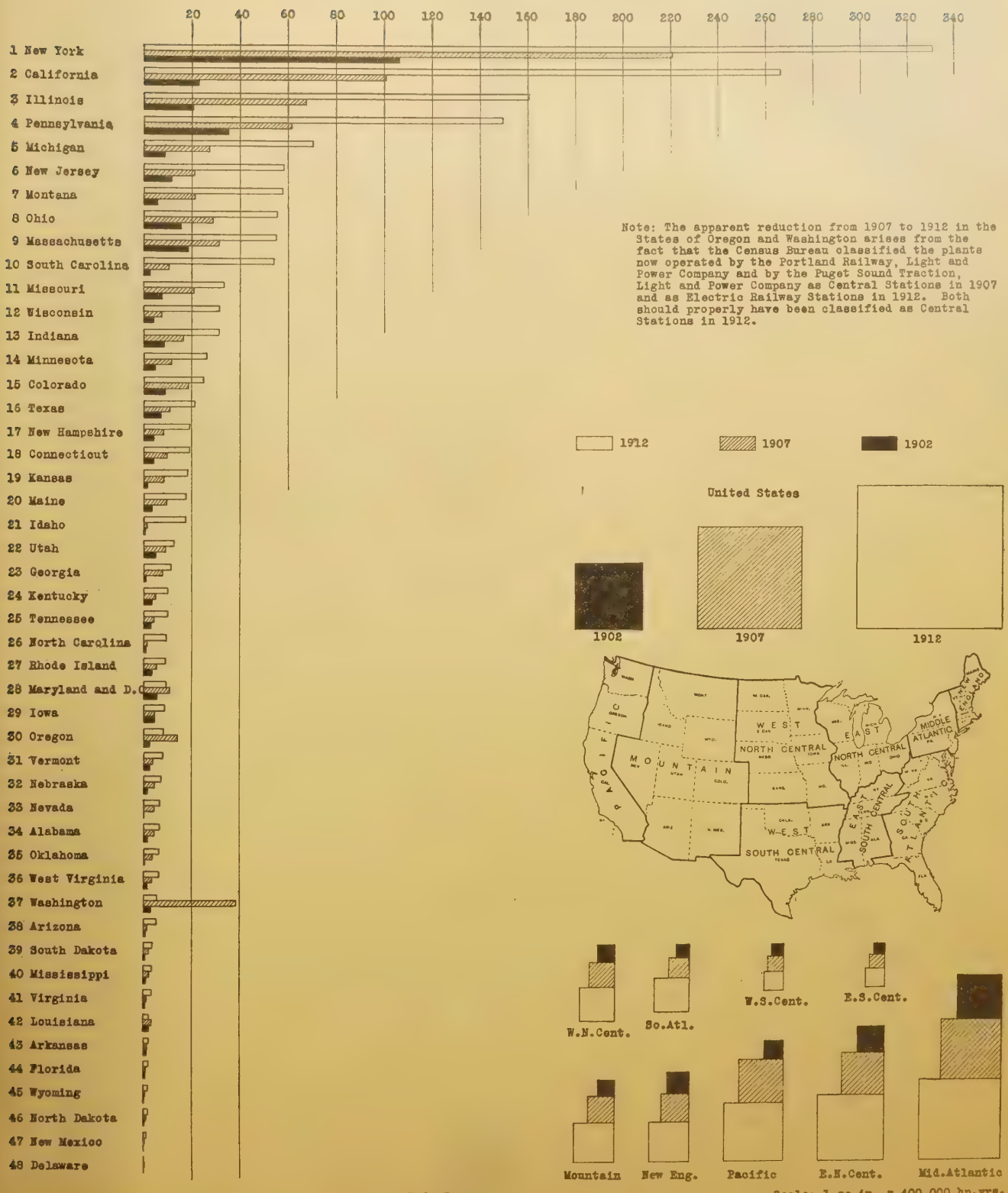
Electric Power Generated in 1912, 1907 and 1902
By States and by Geographic Divisions
In Thousands of Horse-Power Years



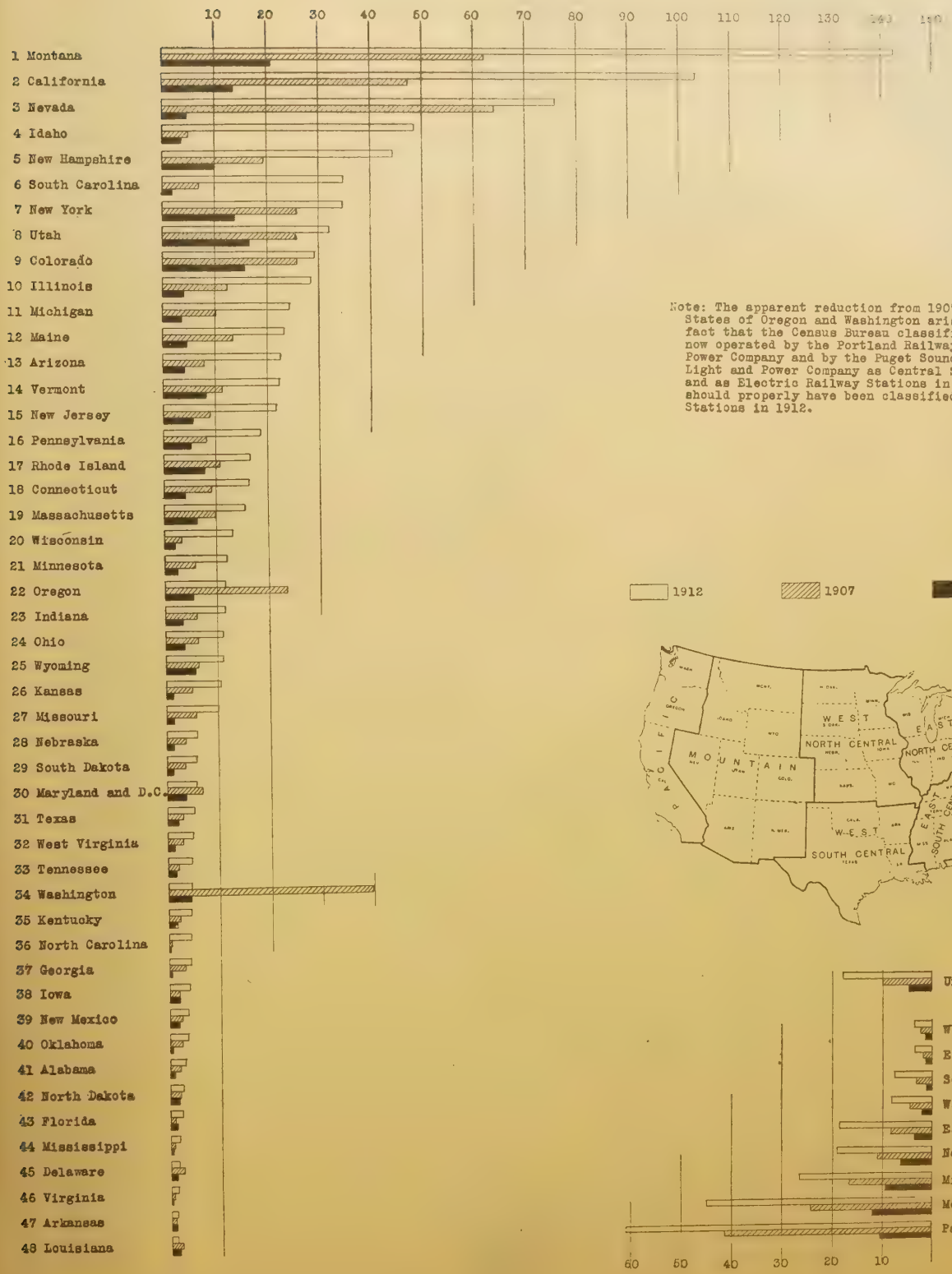
Note: The apparent reduction from 1907 to 1912 in the States of Oregon and Washington arises from the fact that the Census Bureau classified the plants now operated by the Portland Railway, Light and Power Company and by the Puget Sound Traction, Light and Power Company as Central Stations in 1907 and as Electric Railway Stations in 1912. Both should properly have been classified as Central Stations in 1912.

Scale: 1 sq.in. = 400,000 hp.yrs.

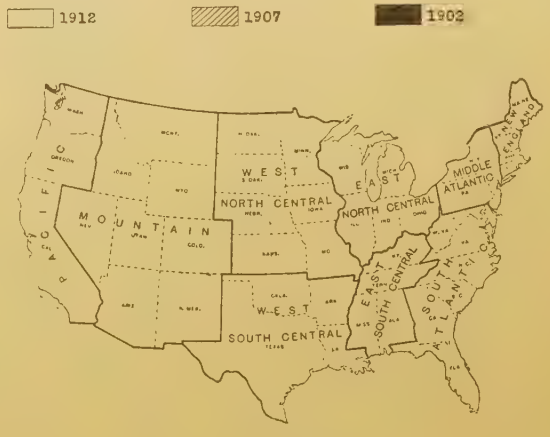
To accompany report on San. Res. No. 544, 62rd. Cong., 3rd. Sess.

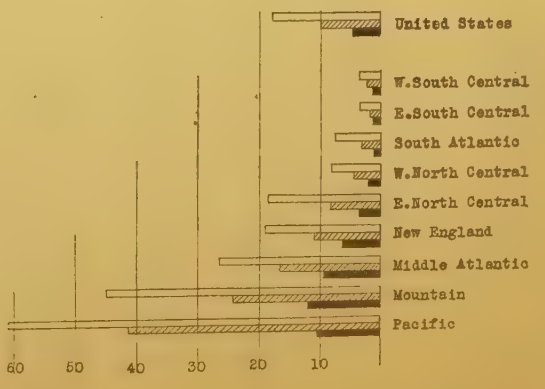
COMMERCIAL CENTRAL STATIONS

Electric Power Generated in 1912, 1907 and 1902, Per Thousand of Population
By States and by Geographic Divisions
In Horse-Power Years



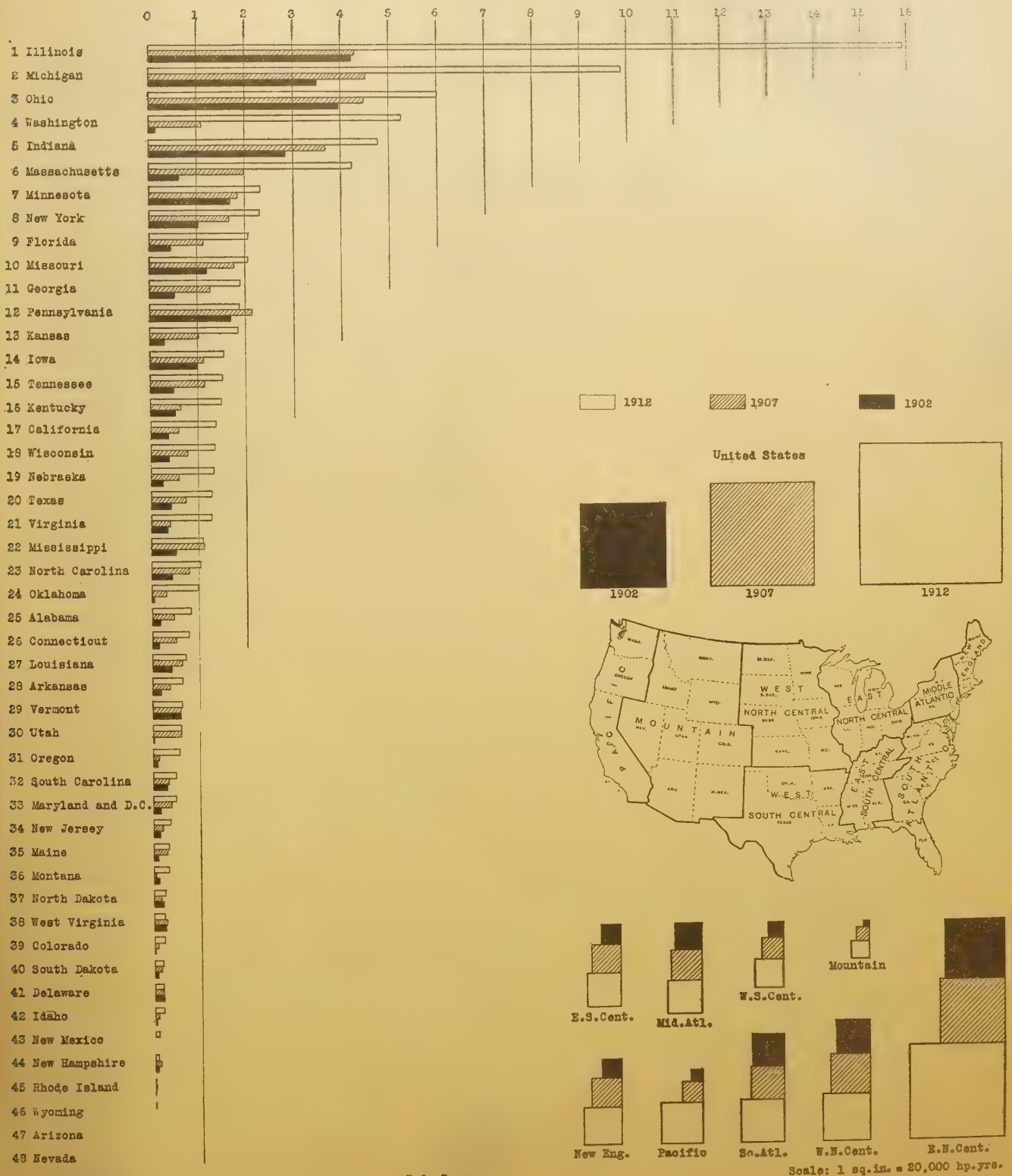
Note: The apparent reduction from 1907 to 1912 in the States of Oregon and Washington arises from the fact that the Census Bureau classified the plants now operated by the Portland Railway, Light and Power Company and by the Puget Sound Traction, Light and Power Company as Central Stations in 1907 and as Electric Railway Stations in 1912. Both should properly have been classified as Central Stations in 1912.





To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

Electric Power Generated in 1912, 1907 and 1902
By States and by Geographic Divisions
In Thousands of Horse-Power Years

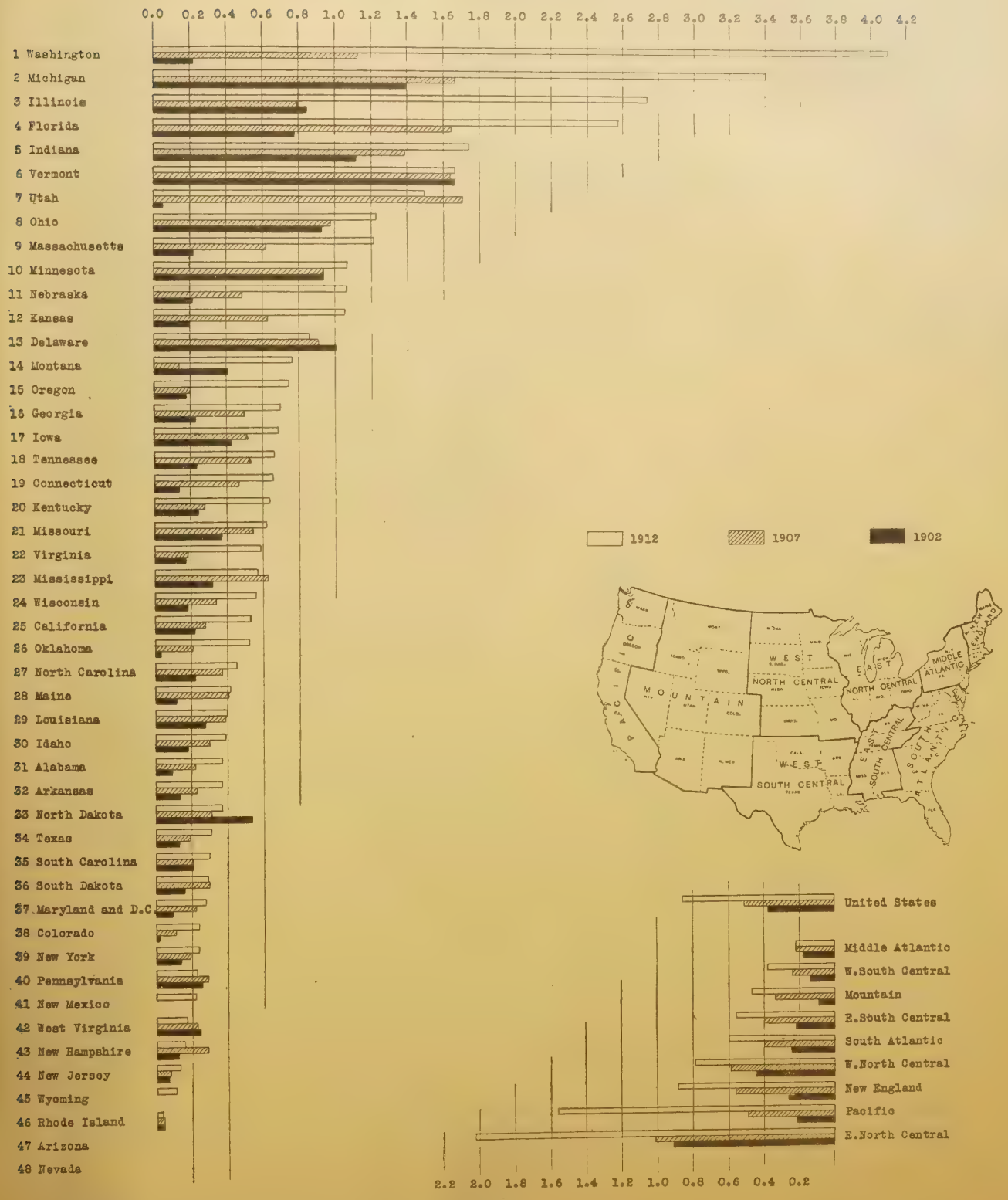


Scale: 1 sq.in. = 20,000 hp.yrs.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

MUNICIPAL CENTRAL STATIONS

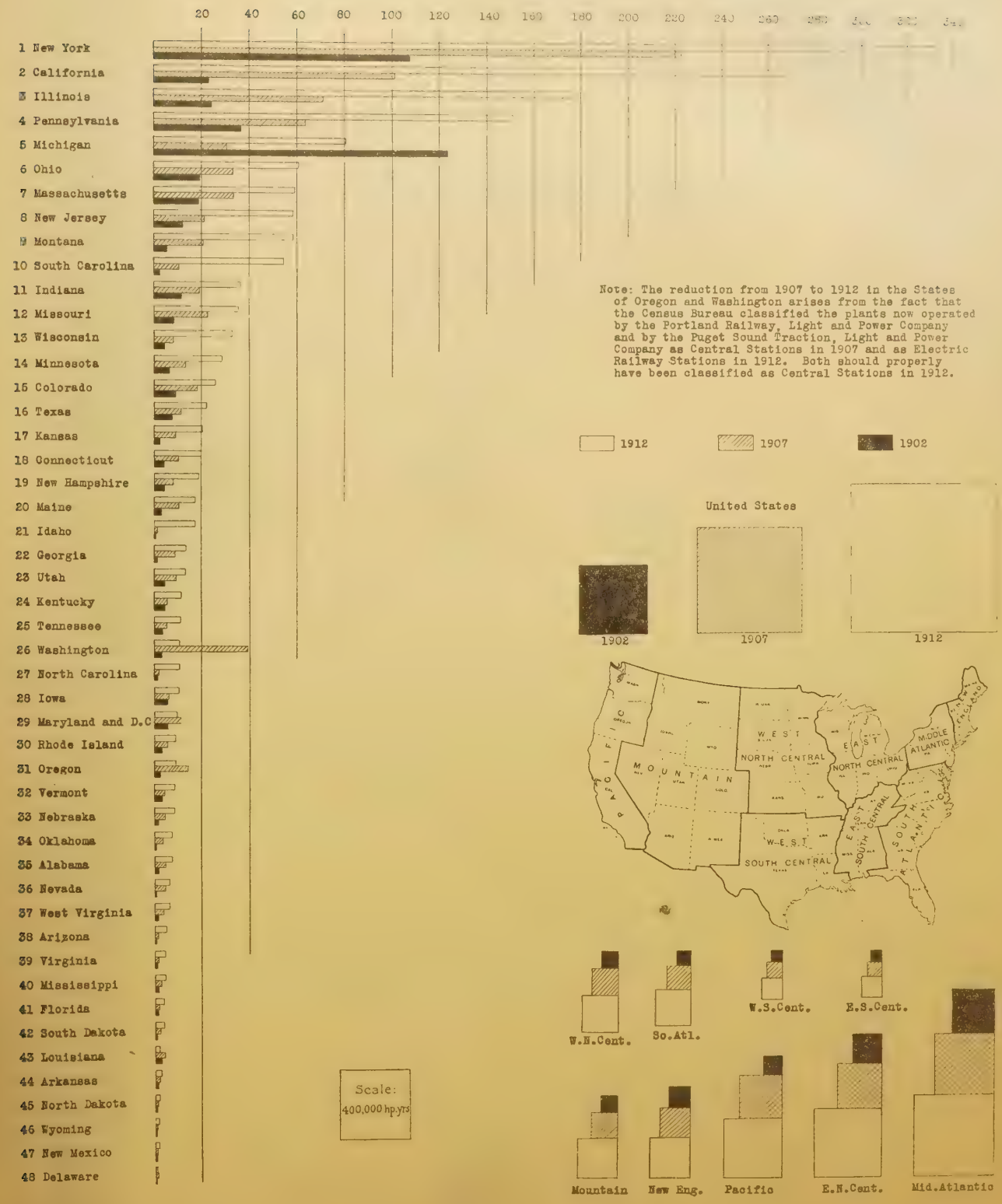
Electric Power Generated in 1912, 1907 and 1902, Per Thousand of Population
By States and by Geographic Divisions
In Horse-Power Years



To accompany report on Sen. Res. No. 544, 62nd. Cong., 3rd. Sess.

COMMERCIAL AND MUNICIPAL CENTRAL STATIONS

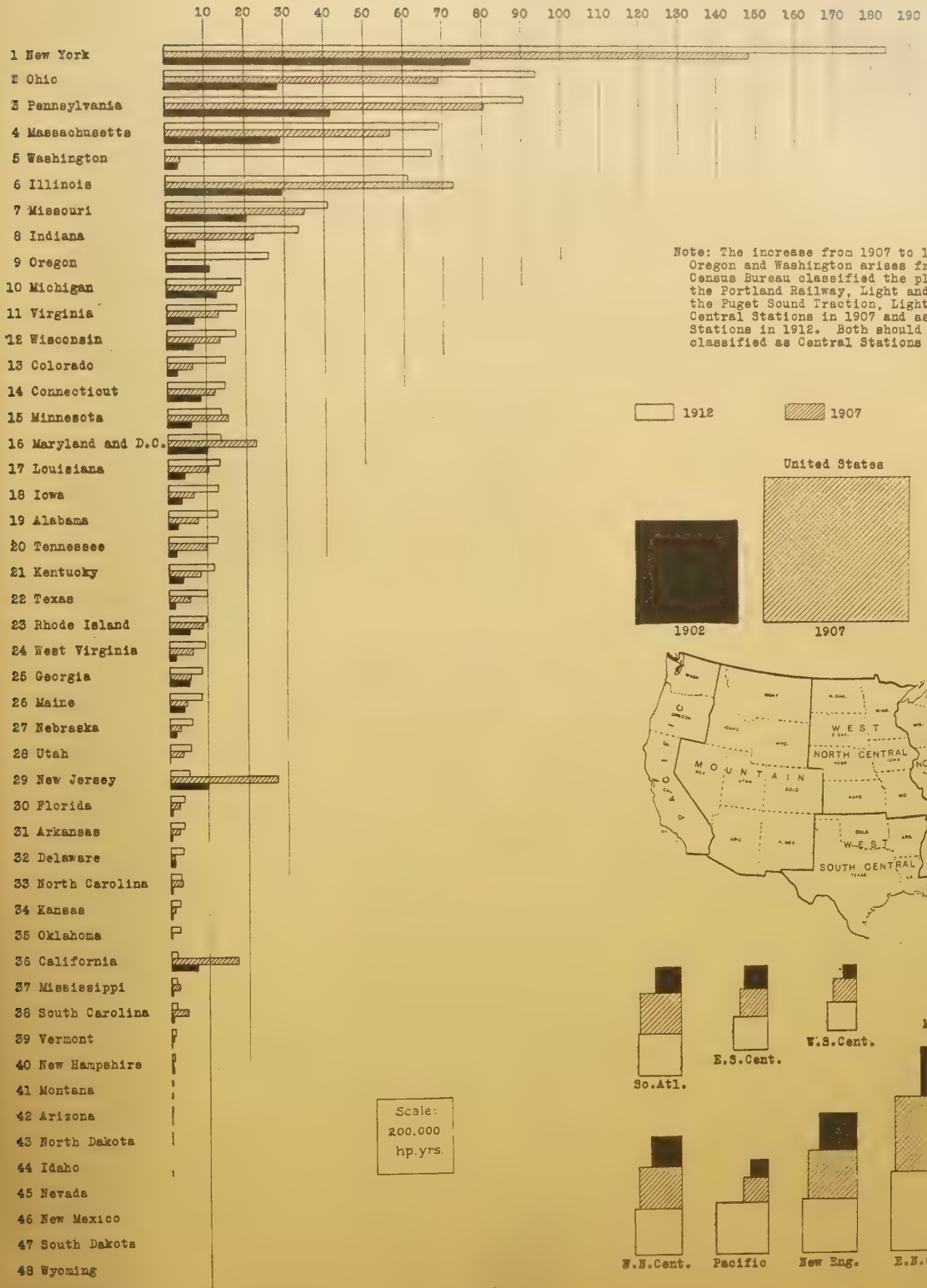
Electric Power Generated in 1912, 1907 and 1902
By States and by Geographic Divisions
In Thousands of Horse-Power Years



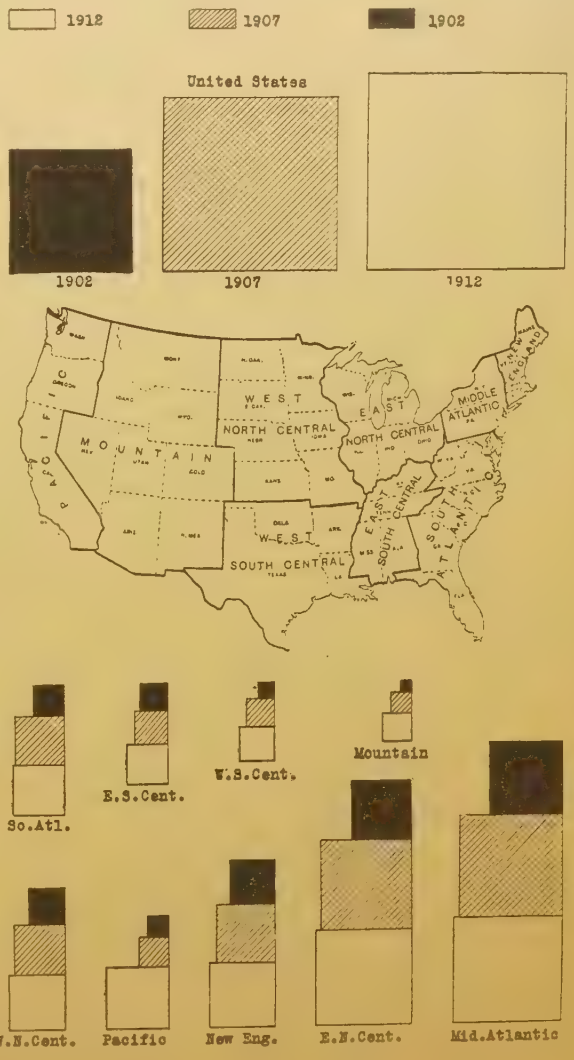
Note: The reduction from 1907 to 1912 in the States of Oregon and Washington arises from the fact that the Census Bureau classified the plants now operated by the Portland Railway, Light and Power Company and by the Puget Sound Traction, Light and Power Company as Central Stations in 1907 and as Electric Railway Stations in 1912. Both should properly have been classified as Central Stations in 1912.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

Electric Power Generated in 1912, 1907 and 1902
By States and by Geographic Divisions
In Thousands of Horse-Power Years

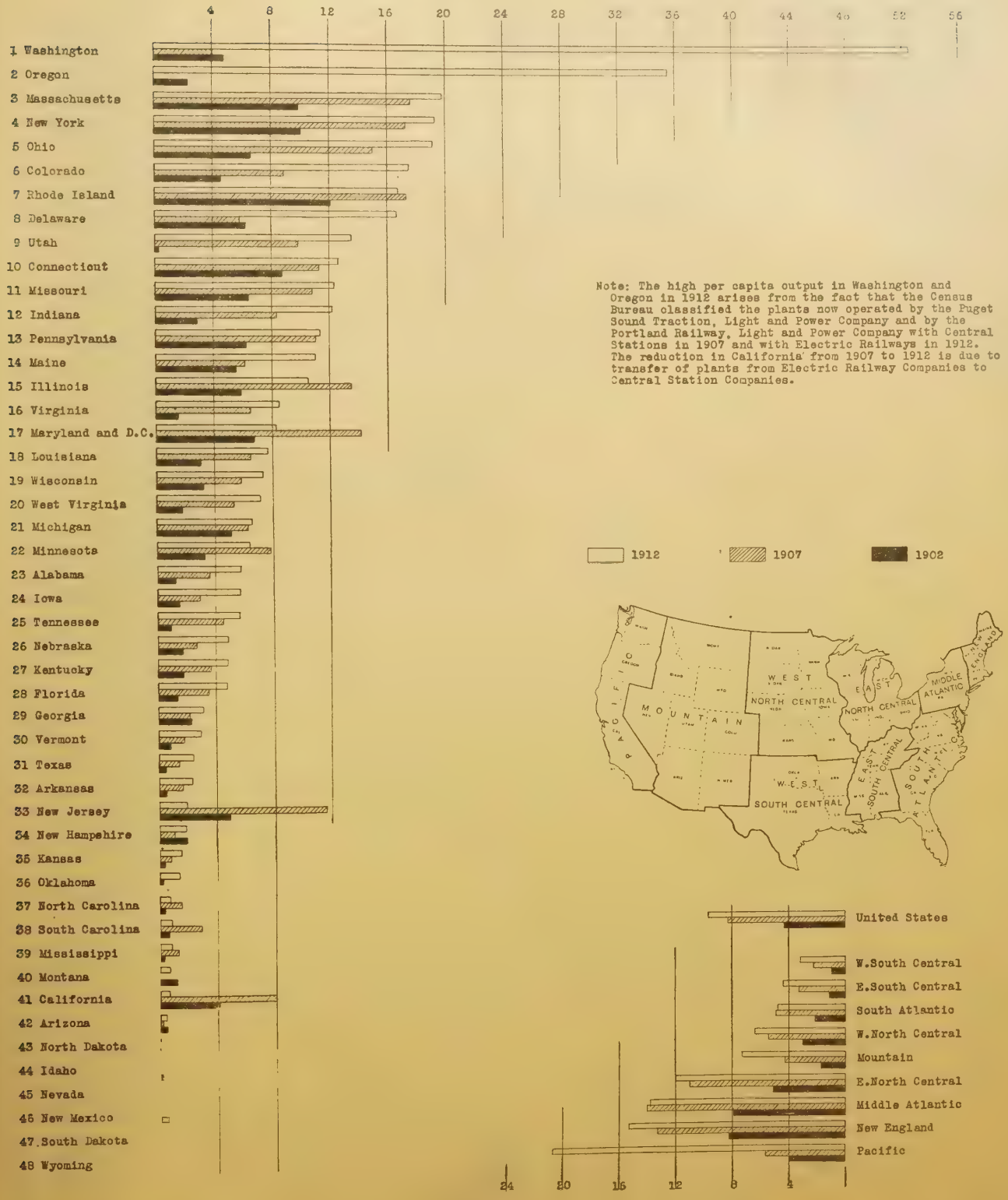


Note: The increase from 1907 to 1912 in the States of Oregon and Washington arises from the fact that the Census Bureau classified the plants now operated by the Portland Railway, Light and Power Company and by the Puget Sound Traction, Light and Power Company as Central Stations in 1907 and as Electric Railway Stations in 1912. Both should properly have been classified as Central Stations in 1912.



To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

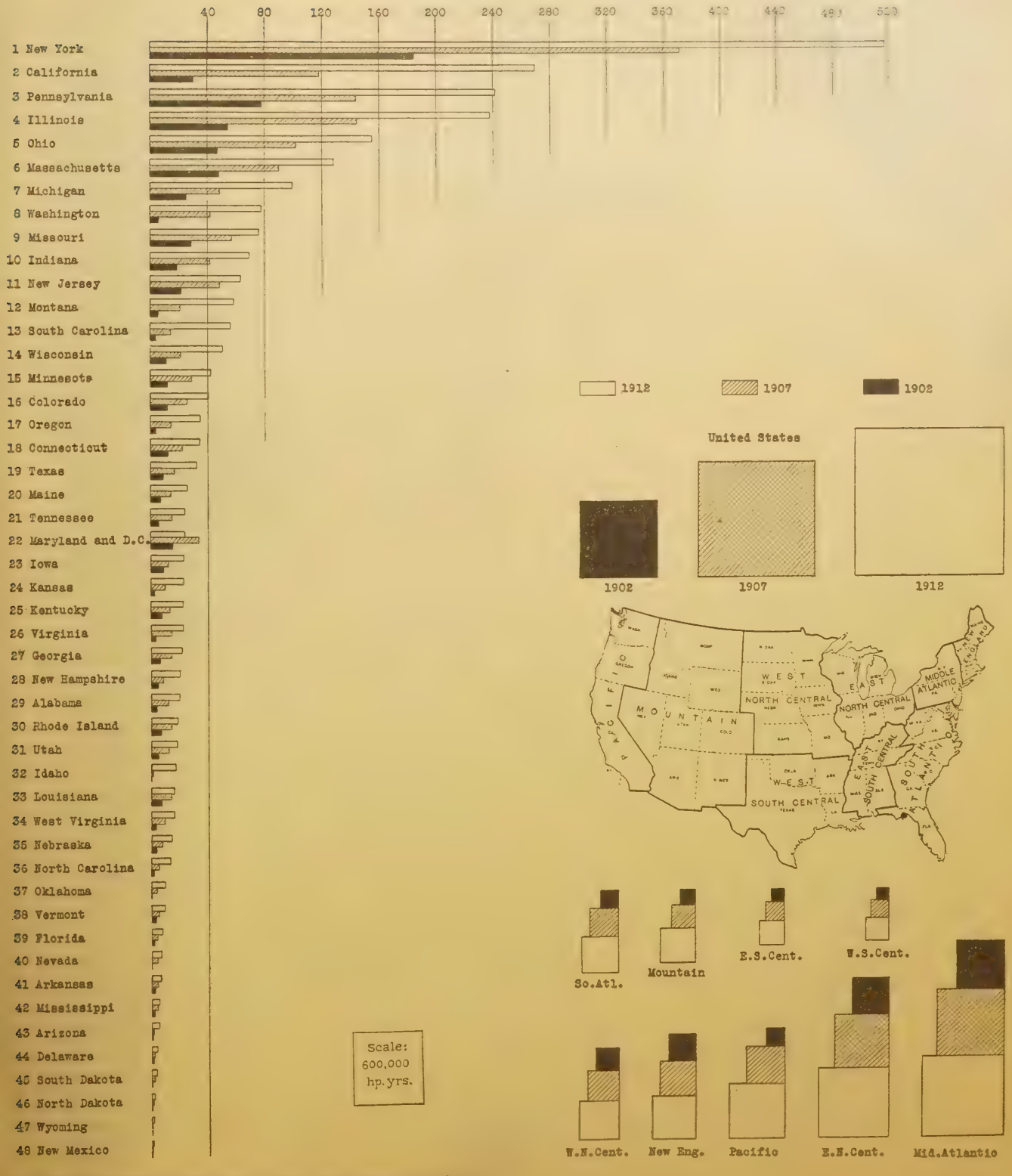
Electric Power Generated in 1912, 1907 and 1902, Per Thousand of Population
By States and by Geographic Divisions
In Horse-Power Years



Note: The high per capita output in Washington and Oregon in 1912 arises from the fact that the Census Bureau classified the plants now operated by the Puget Sound Traction, Light and Power Company and by the Portland Railway, Light and Power Company with Central Stations in 1907 and with Electric Railways in 1912. The reduction in California from 1907 to 1912 is due to transfer of plants from Electric Railway Companies to Central Station Companies.

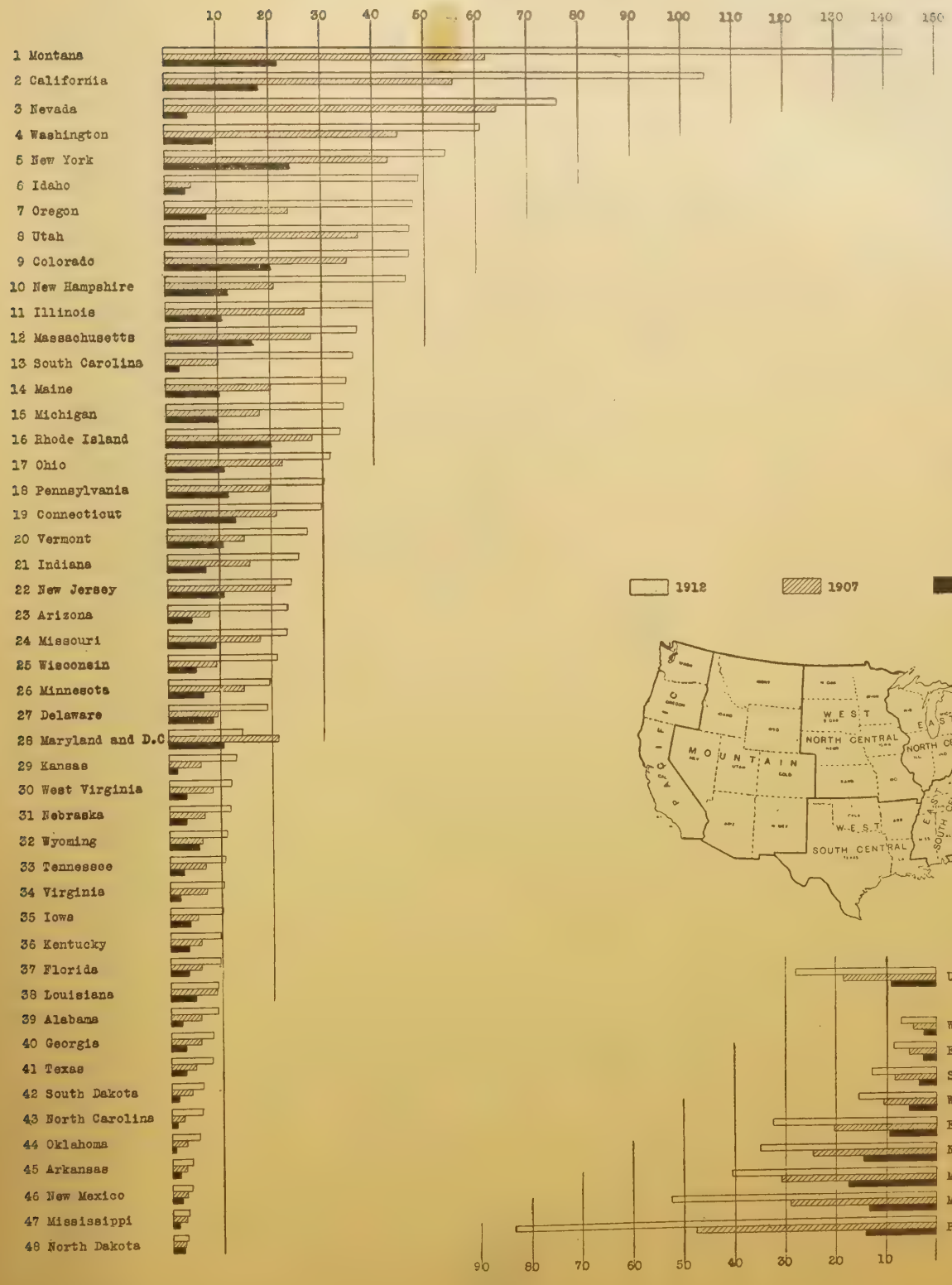
To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

Electric Power Generated in 1912, 1907 and 1902
By States and by Geographic Divisions
In Thousands of Horse-Power Years



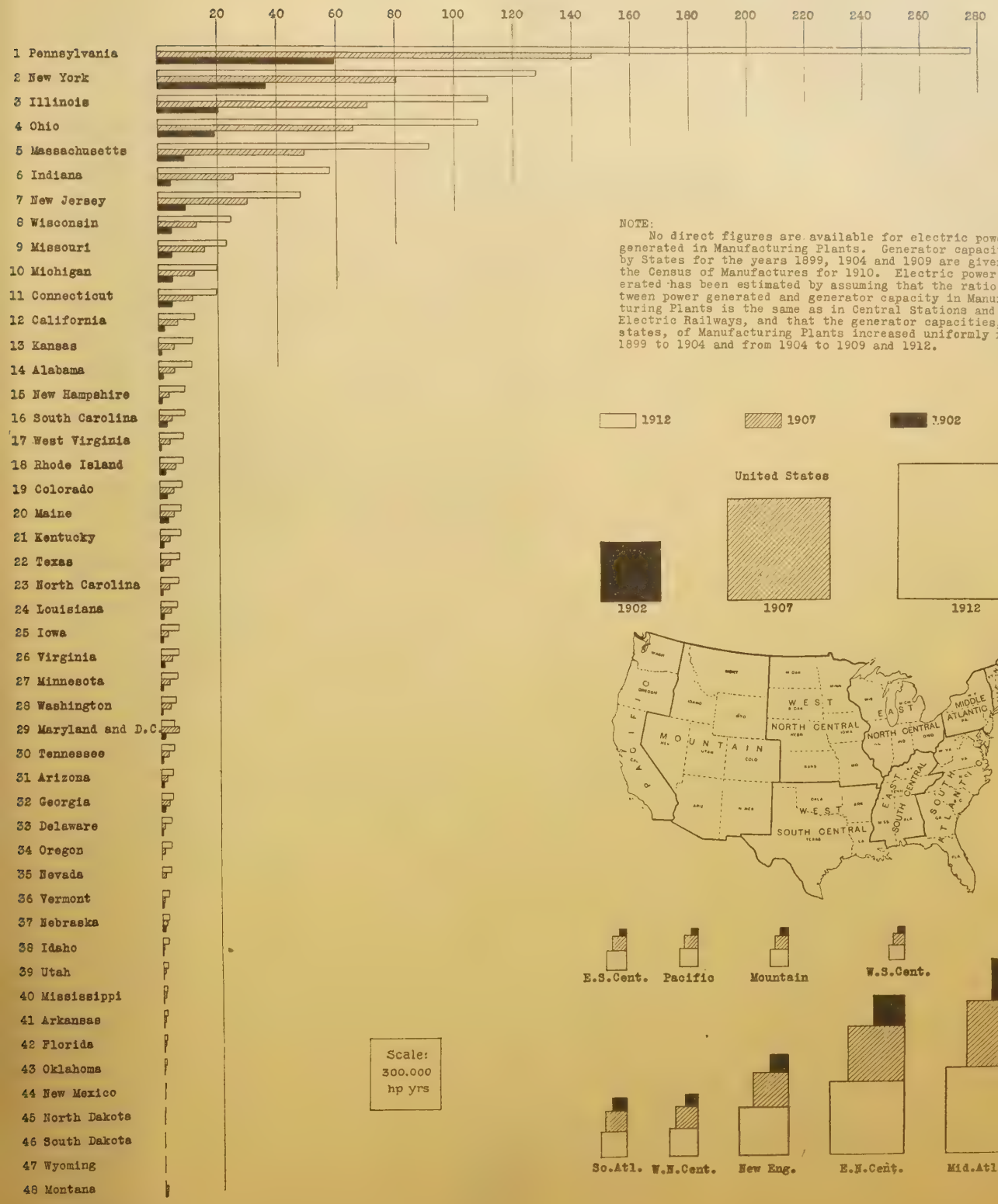
To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

Electric Power Generated in 1912, 1907 and 1902
Per Thousand of Population
By States and by Geographic Divisions
In Horse-Power Years



To accompany report on Sen. Res. No. 544, 62rd. Cong., 3rd. Sess.

Electric Power Generated in 1912, 1907 and 1902
By States and by Geographic Divisions
In Thousands of Horse-Power Years



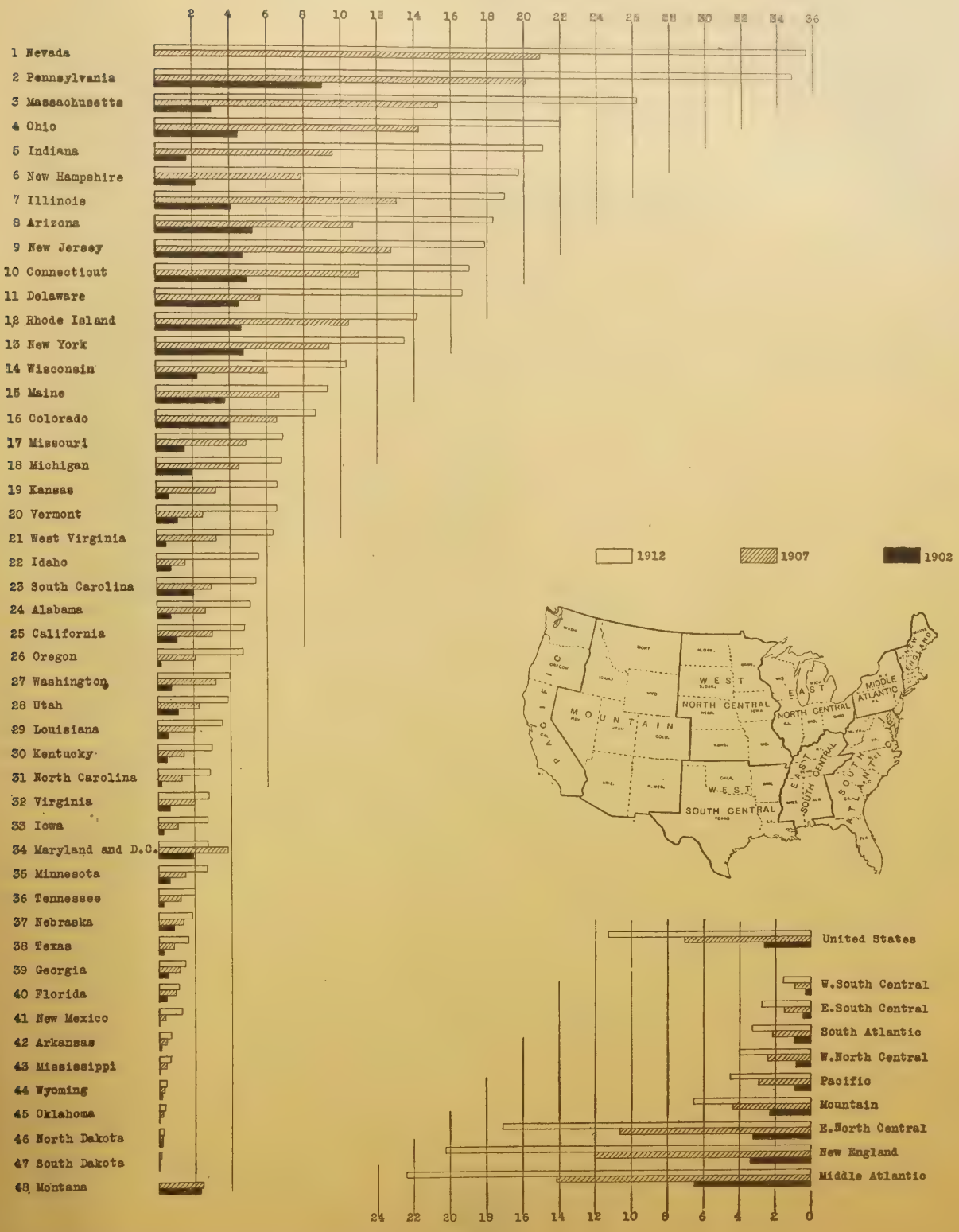
NOTE:

No direct figures are available for electric power generated in Manufacturing Plants. Generator capacities by States for the years 1899, 1904 and 1909 are given in the Census of Manufactures for 1910. Electric power generated has been estimated by assuming that the ratio between power generated and generator capacity in Manufacturing Plants is the same as in Central Stations and Electric Railways, and that the generator capacities, by states, of Manufacturing Plants increased uniformly from 1899 to 1904 and from 1904 to 1909 and 1912.

Scale:
300.000
hp yrs

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

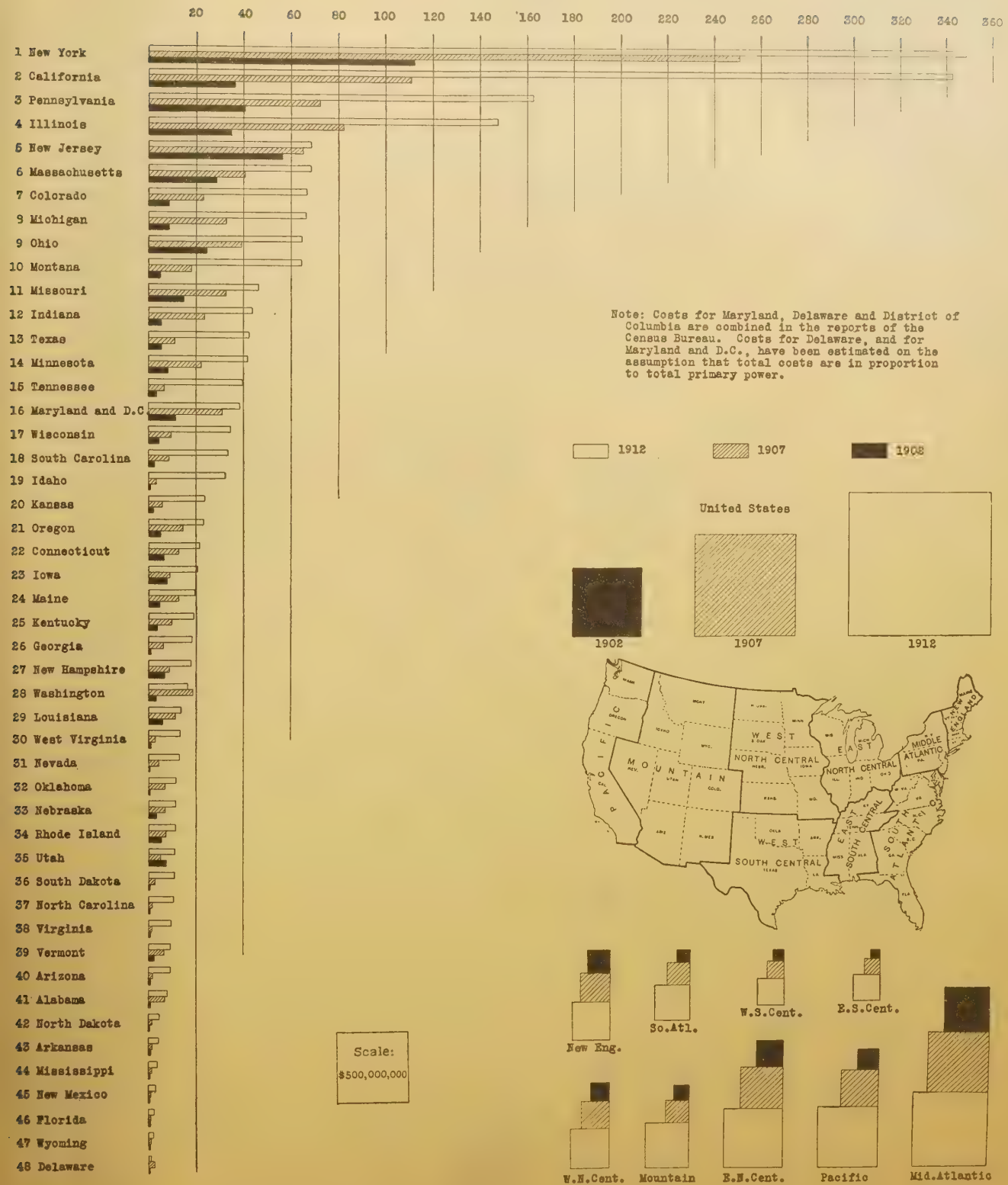
Electric Power Generated in 1912, 1907 and 1902, Per Thousand of Population
By States and by Geographic Divisions
In Horse-Power Years



To Accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

COMMERCIAL CENTRAL STATIONS

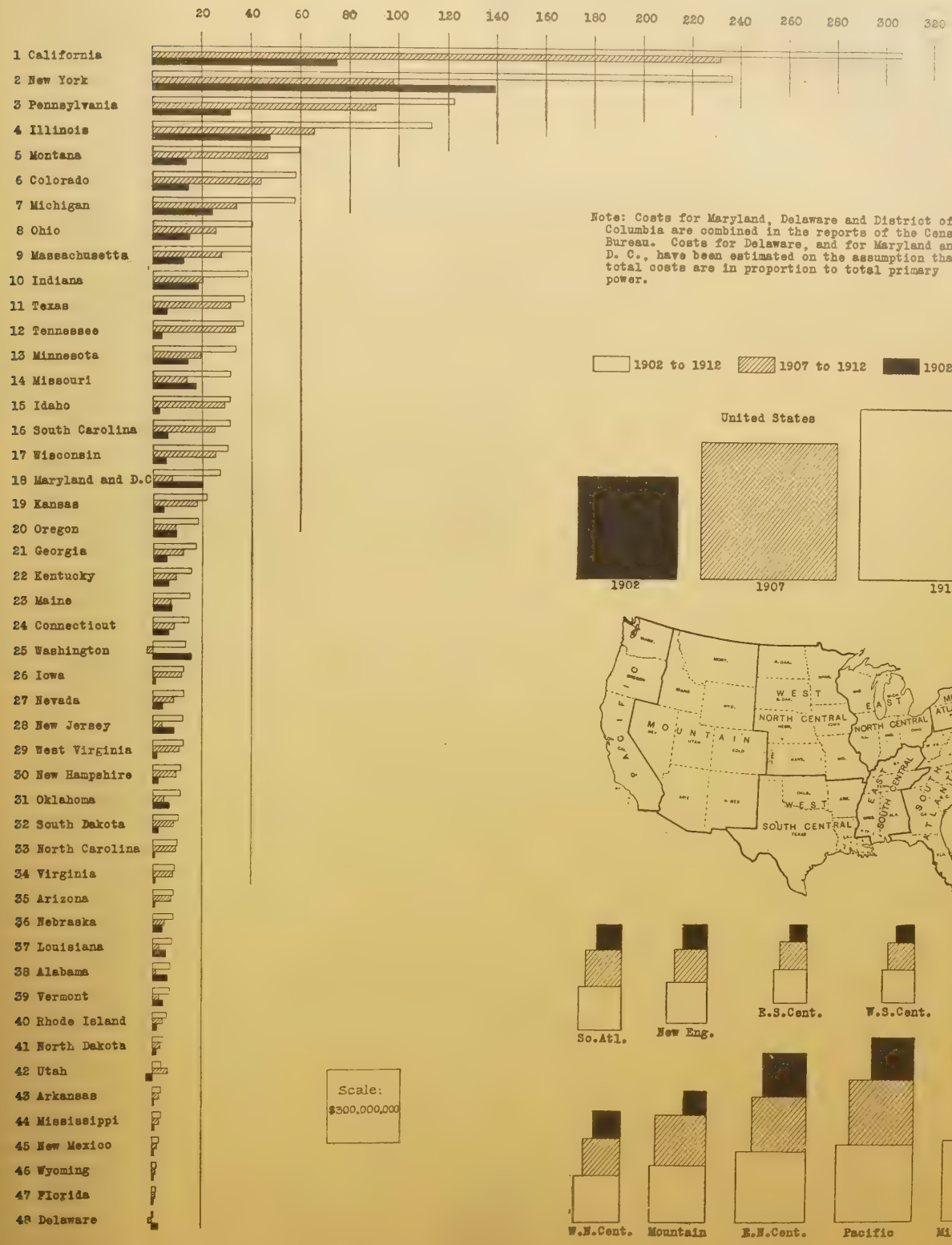
Cost of Construction and of Real Estate, 1912, 1907 and 1902
By States and by Geographic Divisions
In Millions of Dollars



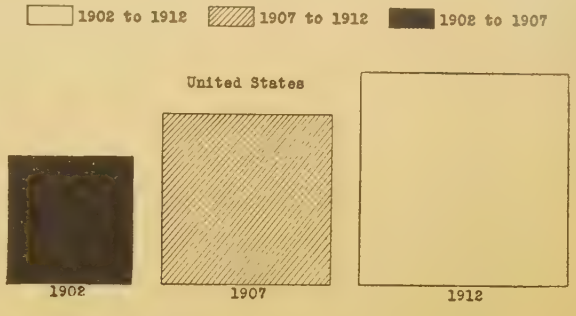
Note: Costs for Maryland, Delaware and District of Columbia are combined in the reports of the Census Bureau. Costs for Delaware, and for Maryland and D.C., have been estimated on the assumption that total costs are in proportion to total primary power.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

Increase in Cost of Construction and of Real Estate, 1902 to 1912, 1907 to 1912, and 1902 to 1907
By States and by Geographic Divisions
In Millions of Dollars

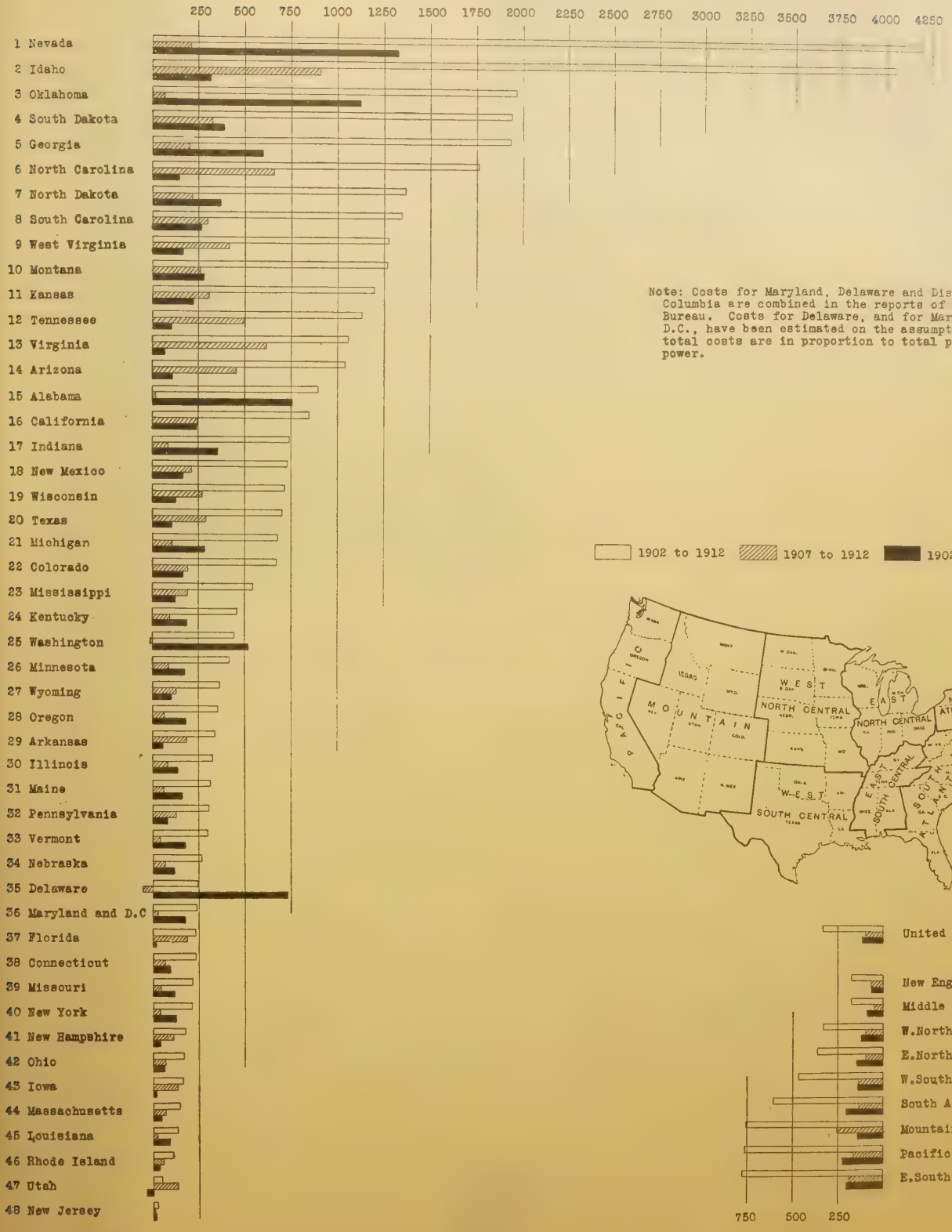


Note: Costs for Maryland, Delaware and District of Columbia are combined in the reports of the Census Bureau. Costs for Delaware, and for Maryland and D. C., have been estimated on the assumption that total costs are in proportion to total primary power.

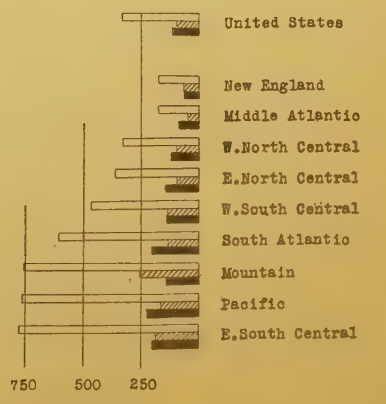


To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

Percentage Increase in Cost of Construction and of Real Estate
1902 to 1912, 1907 to 1912, and 1902 to 1907
By States and by Geographic Divisions



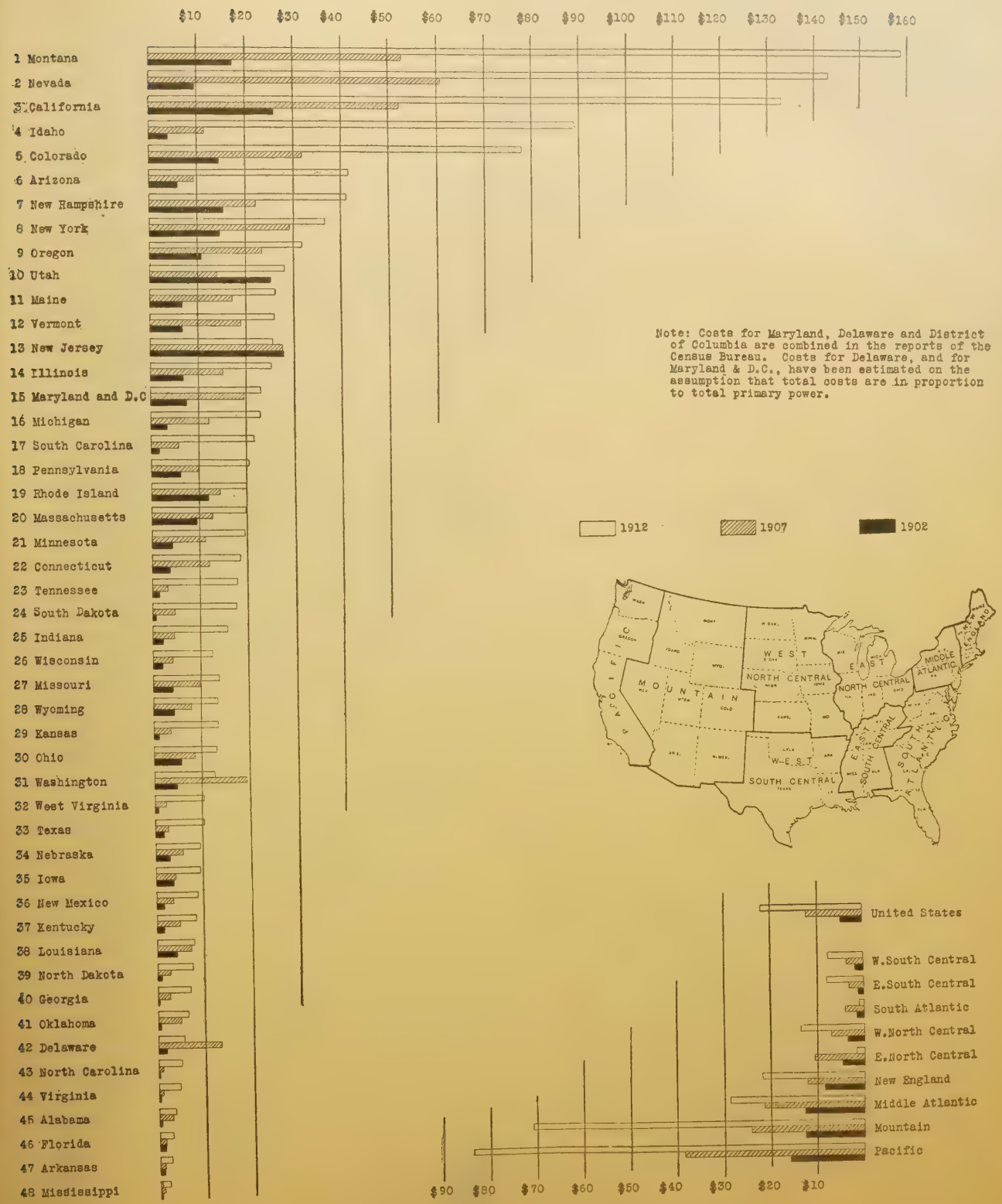
Note: Costs for Maryland, Delaware and District of Columbia are combined in the reports of the Census Bureau. Costs for Delaware, and for Maryland and D.C., have been estimated on the assumption that total costs are in proportion to total primary power.



To accompany report on Sen. Res. No. 544, 62rd. Cong., 3rd. Sess.

COMMERCIAL CENTRAL STATIONS

Cost of Construction and of Real Estate, Per Capita, up to 1912, 1907 and 1902
By States and by Geographic Divisions
In Order of 1912 Figures

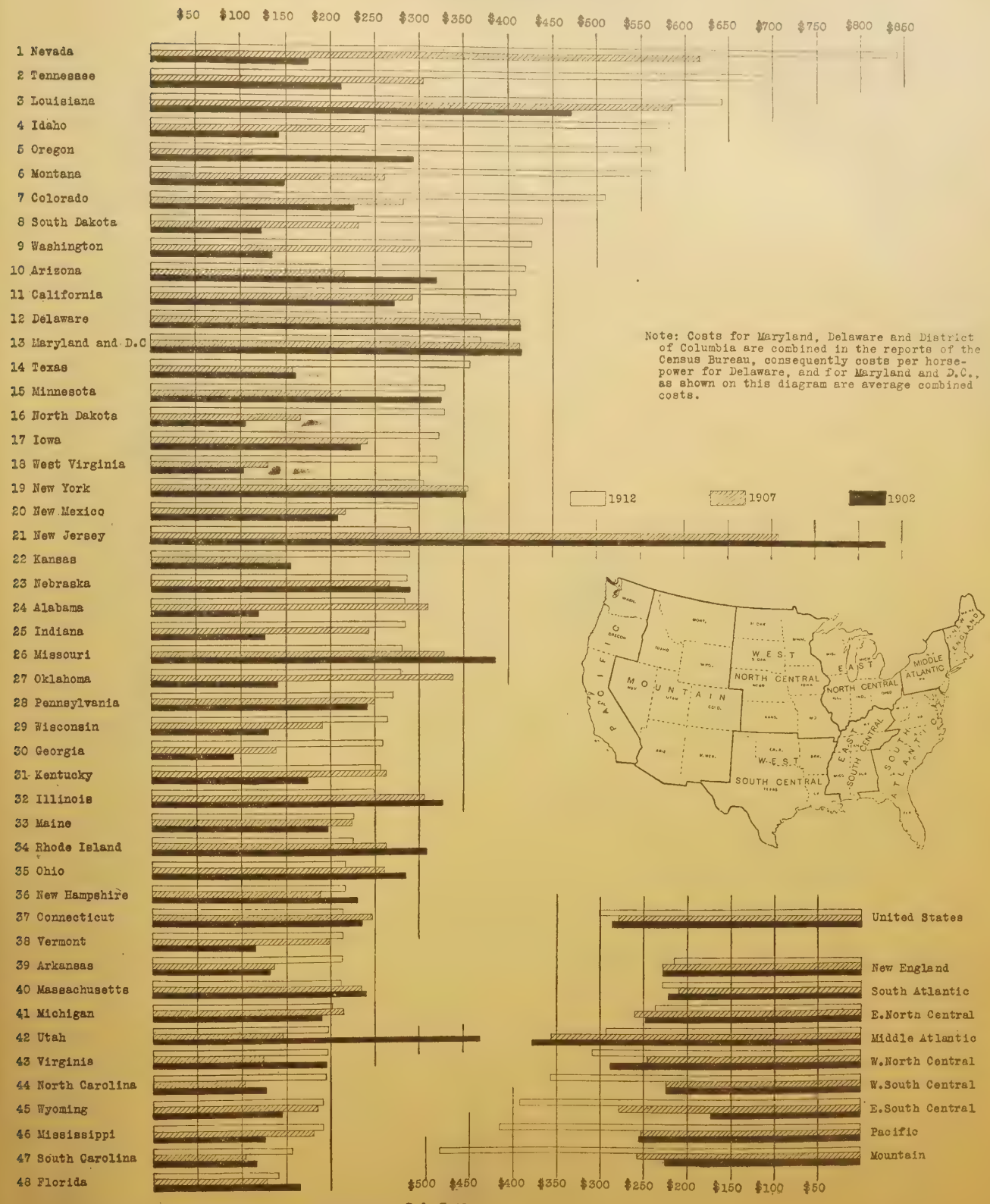


Note: Costs for Maryland, Delaware and District of Columbia are combined in the reports of the Census Bureau. Costs for Delaware, and for Maryland & D.C., have been estimated on the assumption that total costs are in proportion to total primary power.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

COMMERCIAL CENTRAL STATIONS

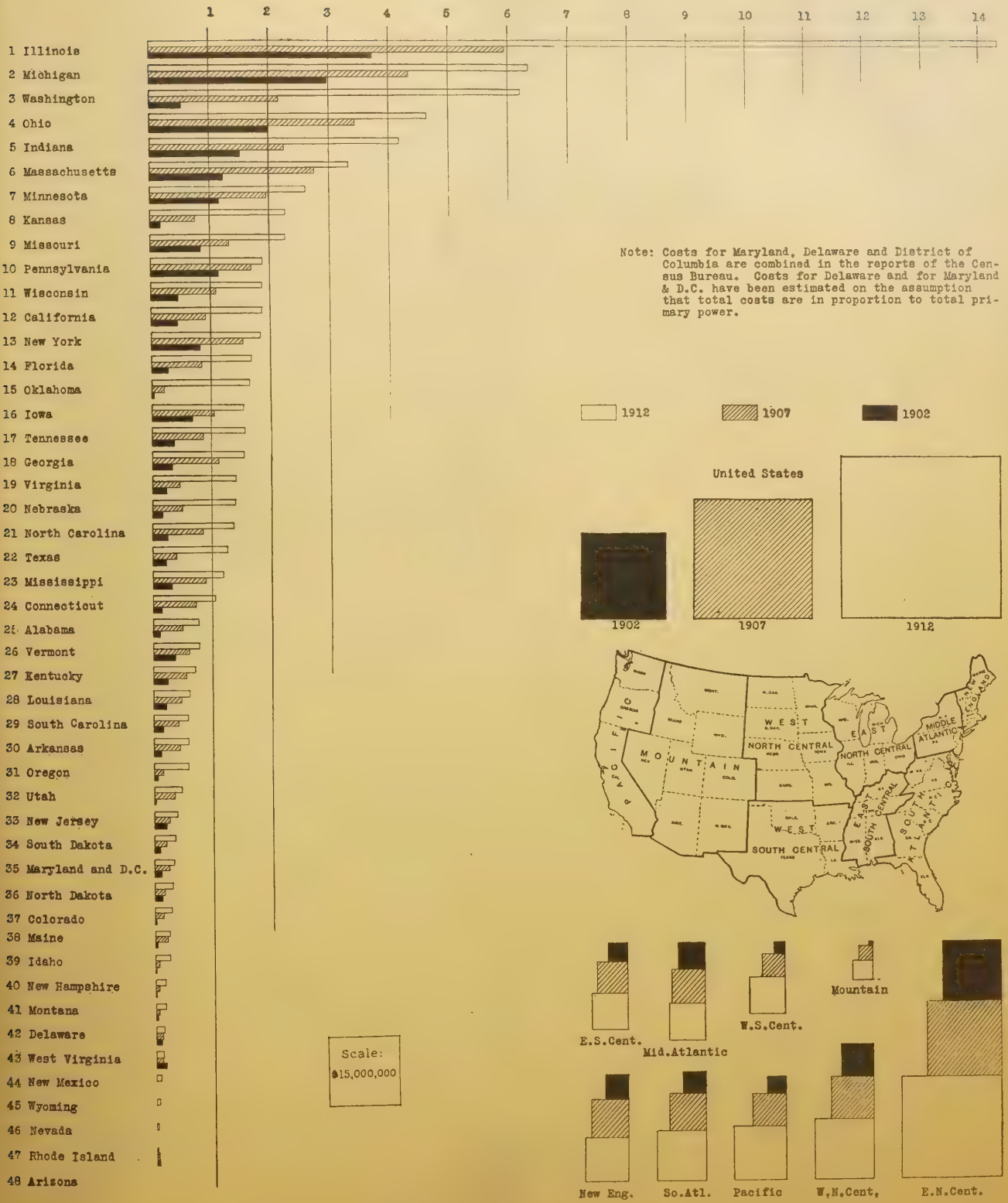
Cost of Construction and of Real Estate, Per Horse-Power of Primary Power, up to 1912, 1907 and 1902
By States and by Geographic Divisions
In Order of 1912 Figures



Note: Costs for Maryland, Delaware and District of Columbia are combined in the reports of the Census Bureau, consequently costs per horse-power for Delaware, and for Maryland and D.C., as shown on this diagram are average combined costs.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

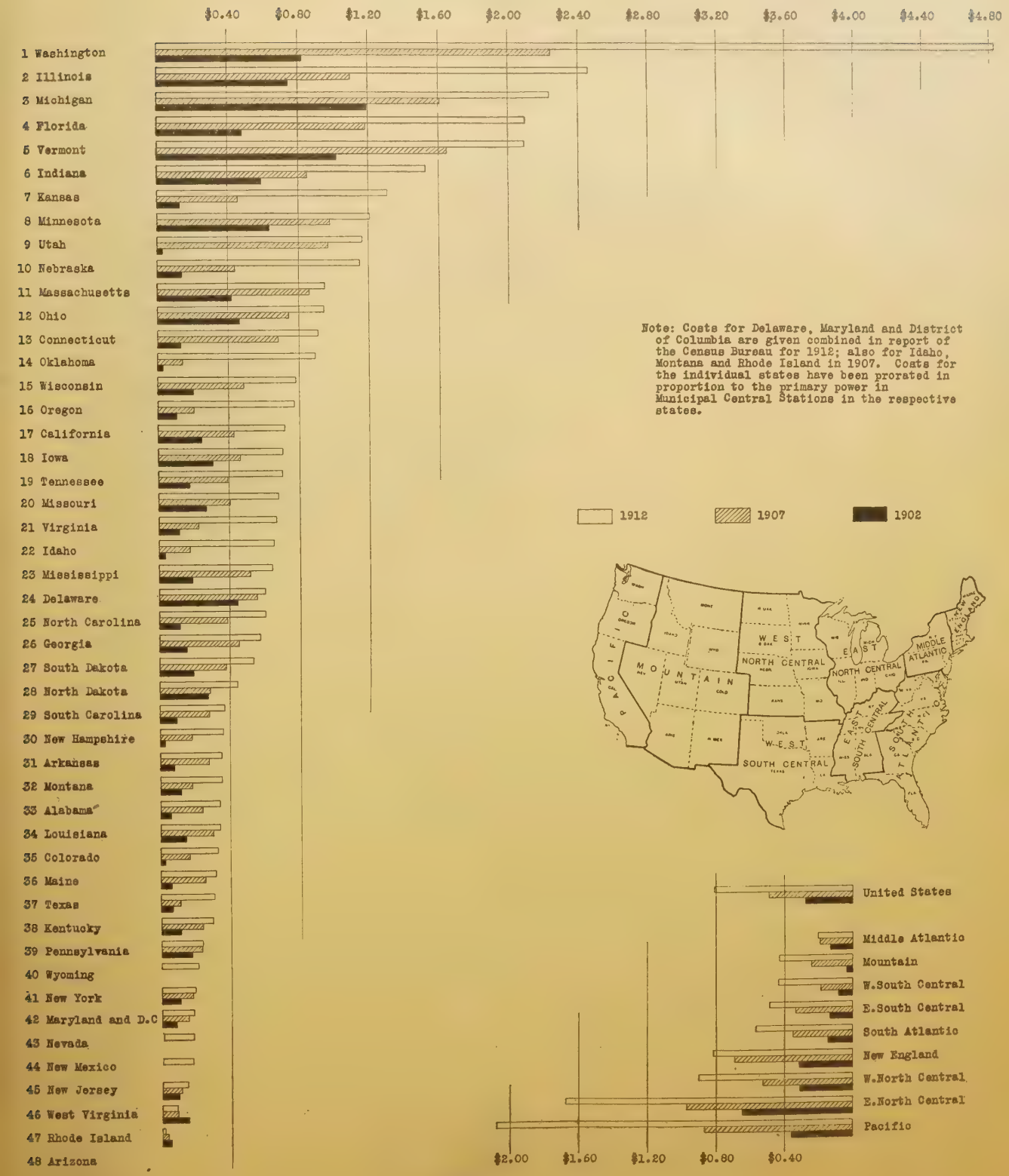
Cost of Construction, and of Real Estate, 1912, 1907 and 1902
By States and by Geographic Divisions
In Millions of Dollars



Note: Costs for Maryland, Delaware and District of Columbia are combined in the reports of the Census Bureau. Costs for Delaware and for Maryland & D.C. have been estimated on the assumption that total costs are in proportion to total primary power.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess

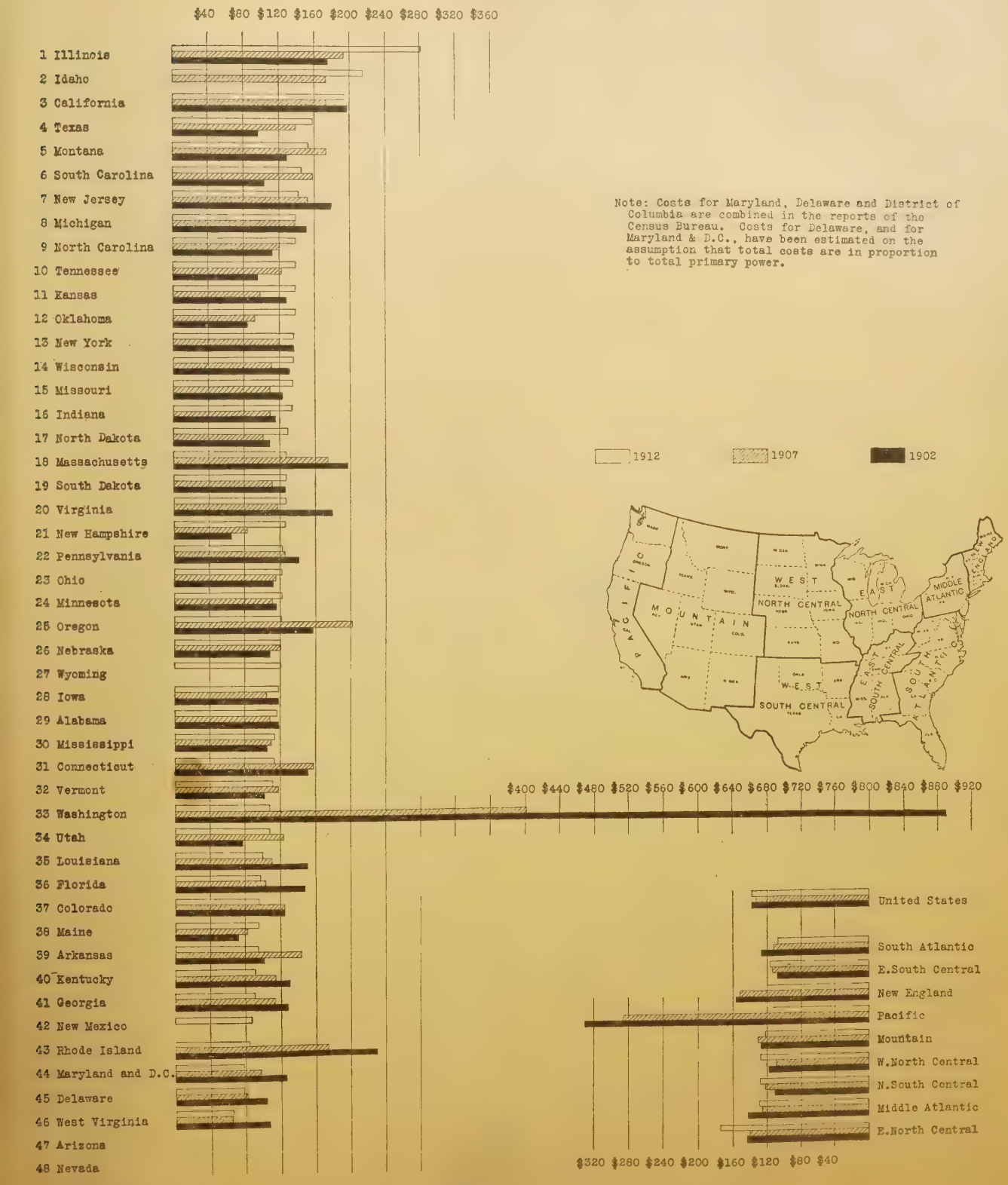
Cost of Construction and of Real Estate, Per Capita, up to 1912, 1907 and 1902
By States and by Geographic Divisions



Note: Costs for Delaware, Maryland and District of Columbia are given combined in report of the Census Bureau for 1912; also for Idaho, Montana and Rhode Island in 1907. Coats for the individual states have been prorated in proportion to the primary power in Municipal Central Stations in the respective states.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

Cost of Construction and of Real Estate, Per Horse-Power of Primary Power, up to 1912, 1907 and 1902
By States and by Geographic Divisions
In Order of 1912 Figures

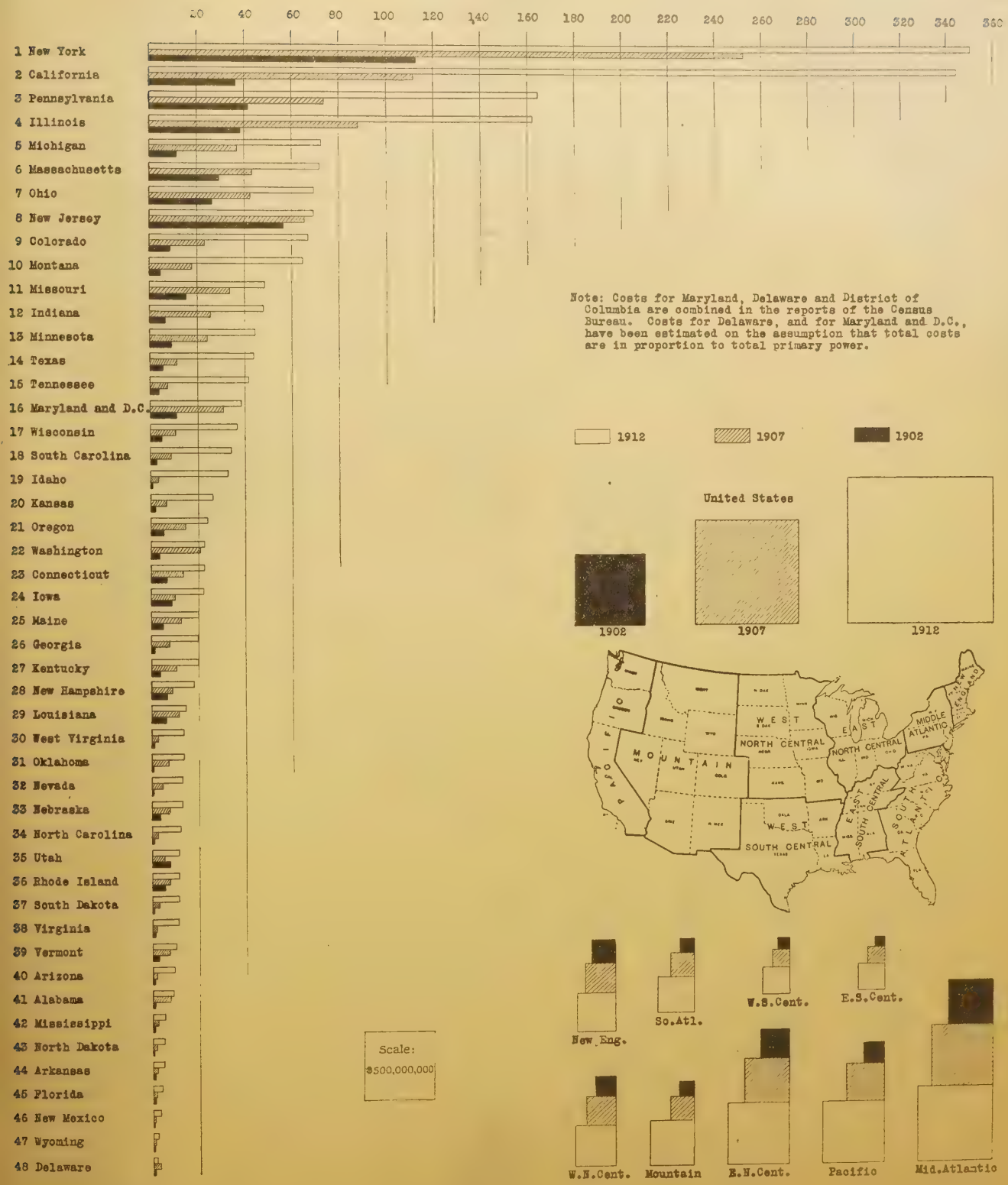


Note: Costs for Maryland, Delaware and District of Columbia are combined in the reports of the Census Bureau. Costs for Delaware, and for Maryland & D.C., have been estimated on the assumption that total costs are in proportion to total primary power.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

COMMERCIAL AND MUNICIPAL CENTRAL STATIONS

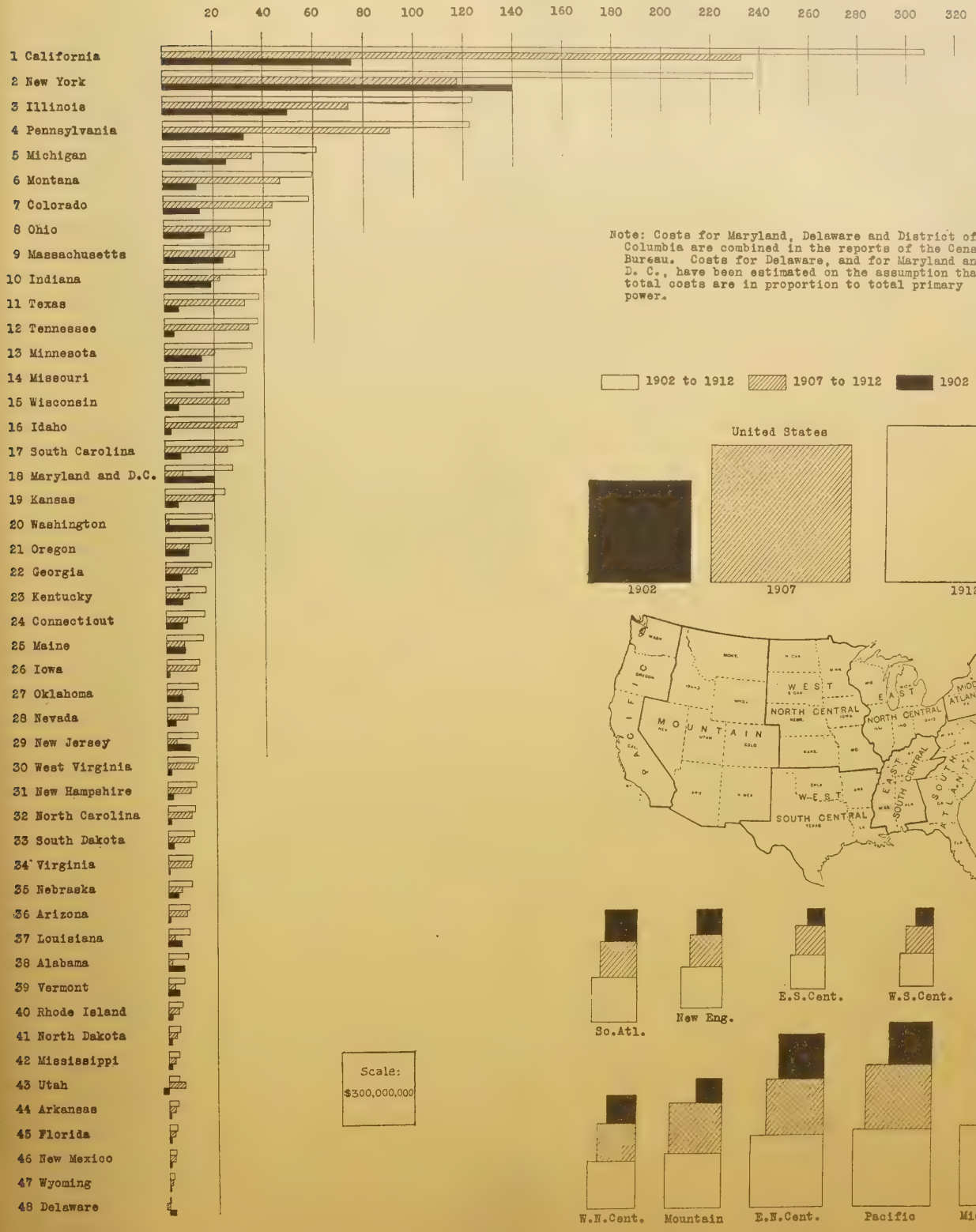
Cost of Construction and of Real Estate, up to 1912, 1907 and 1902
By States and by Geographic Divisions
In Millions of Dollars



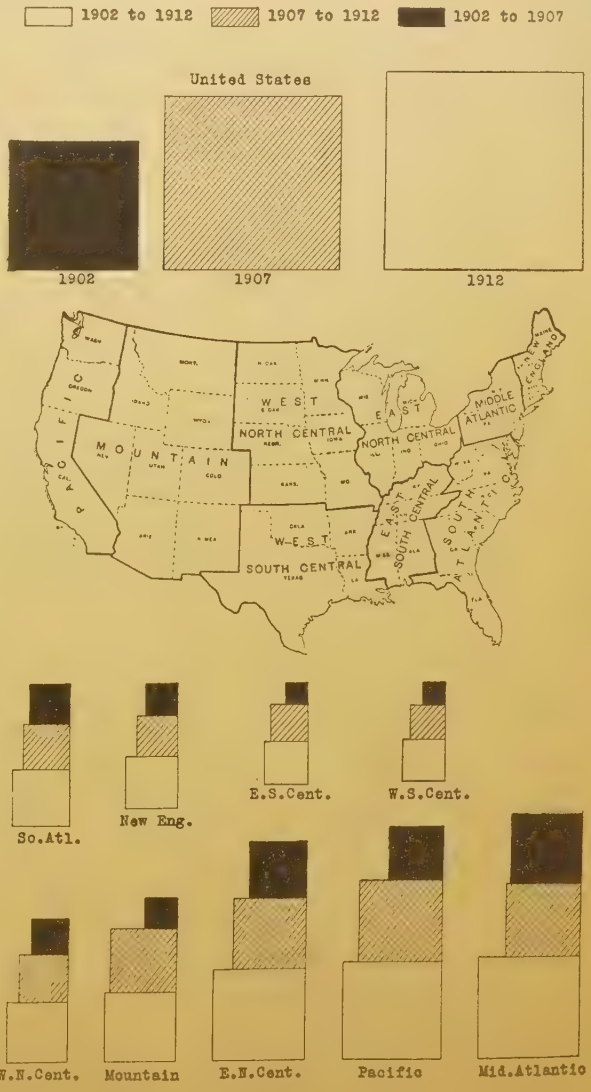
Note: Costs for Maryland, Delaware and District of Columbia are combined in the reports of the Census Bureau. Costs for Delaware, and for Maryland and D.C., have been estimated on the assumption that total costs are in proportion to total primary power.

To accompany report on Sen. Res. No. 544, 62rd. Cong., 3rd. Sess.

Increase in Cost of Construction and of Real Estate: - 1902 to 1912, 1907 to 1912, and 1902 to 1907
By States and by Geographic Divisions
In Millions of Dollars



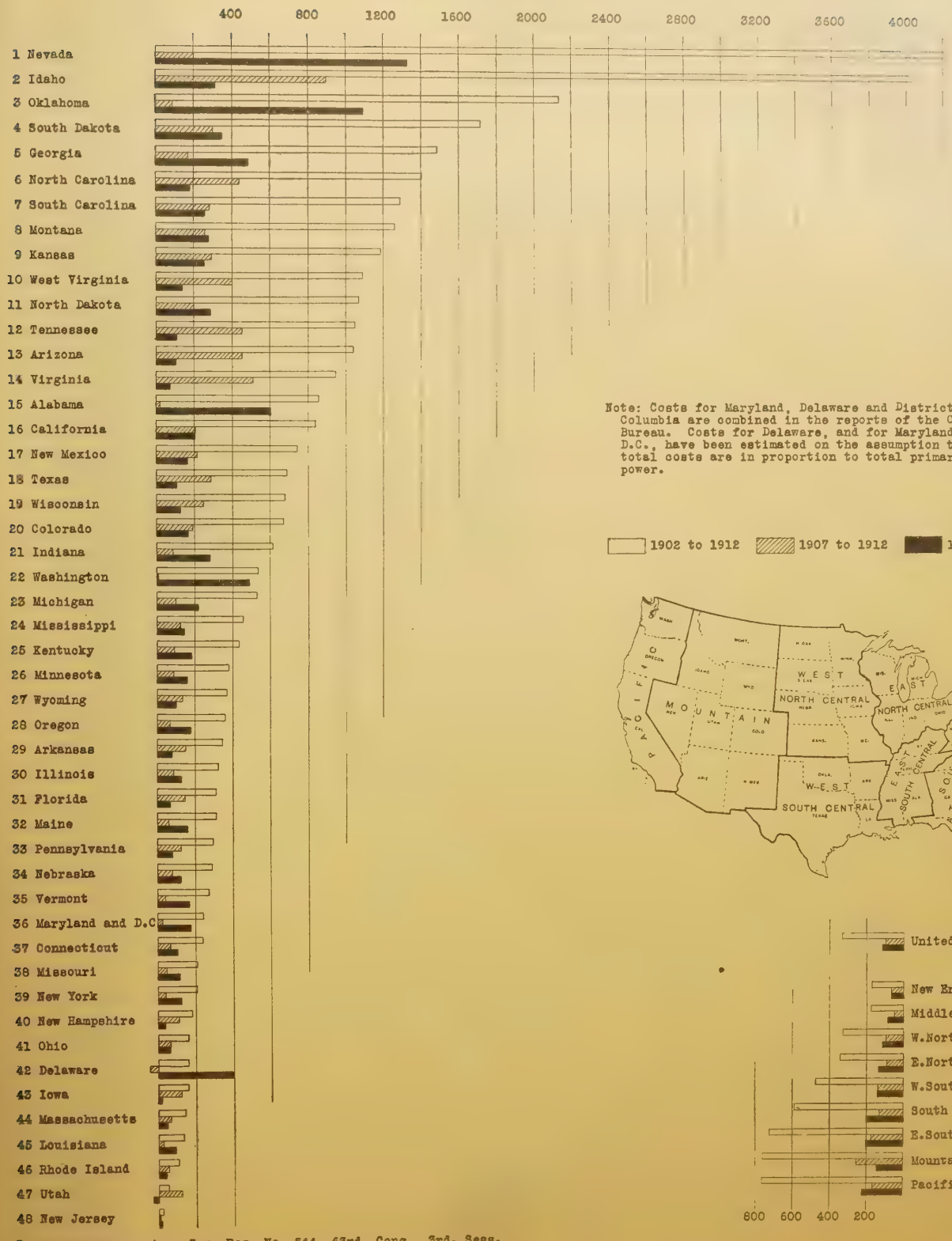
Note: Costs for Maryland, Delaware and District of Columbia are combined in the reports of the Census Bureau. Costs for Delaware, and for Maryland and D. C., have been estimated on the assumption that total costs are in proportion to total primary power.



To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

COMMERCIAL AND MUNICIPAL CENTRAL STATIONS

Percentage Increase in Cost of Construction and of Real Estate
1902 to 1912, 1907 to 1912, and 1902 to 1907
By States and by Geographic Divisions



Note: Costs for Maryland, Delaware and District of Columbia are combined in the reports of the Census Bureau. Costs for Delaware, and for Maryland and D.C., have been estimated on the assumption that total costs are in proportion to total primary power.

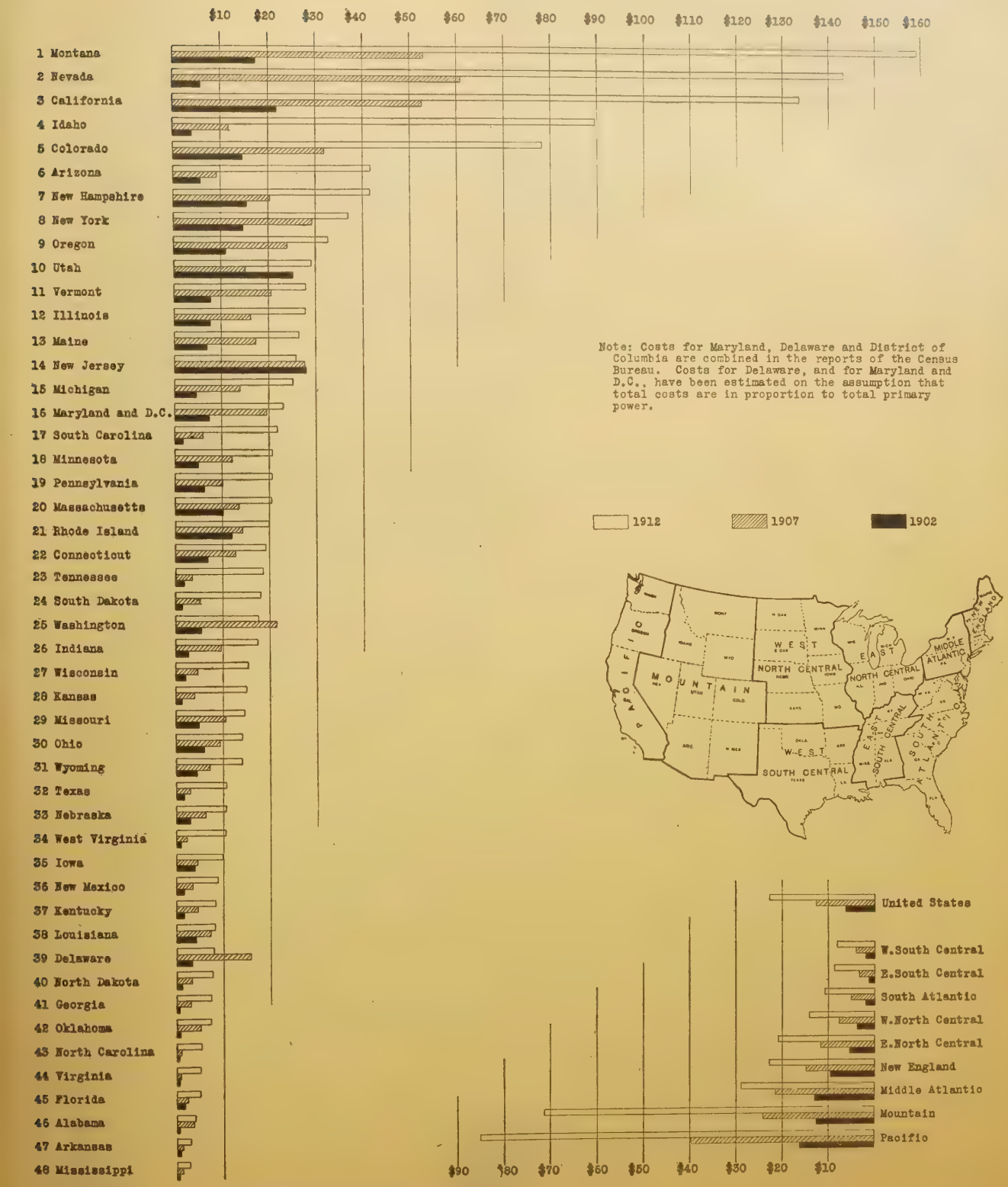
1902 to 1912 | 1907 to 1912 | 1902 to 1907

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

COMMERCIAL AND MUNICIPAL CENTRAL STATIONS

PLATE 16

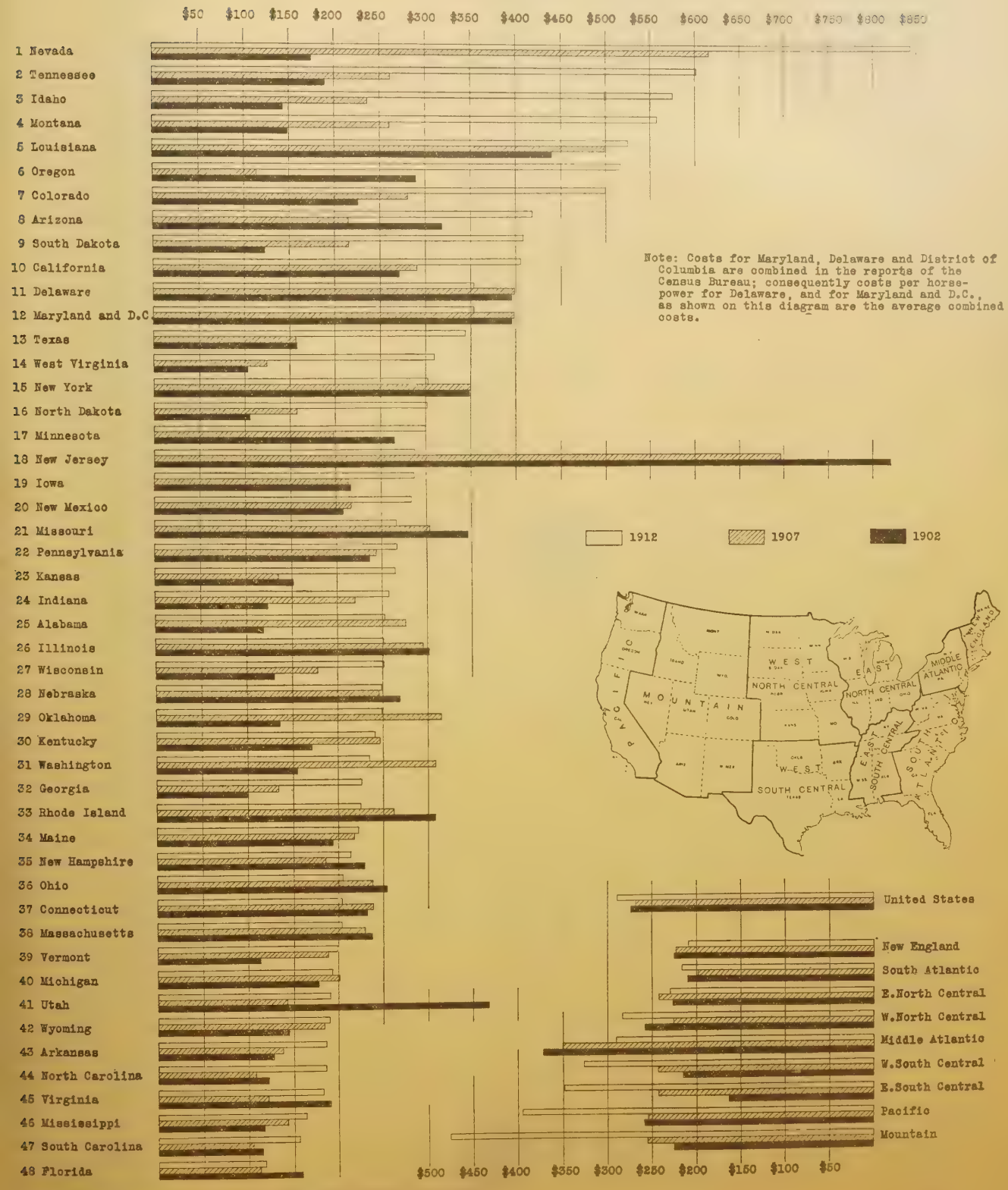
Cost of Construction and of Real Estate, Per Capita, up to 1912, 1907 and 1902
By States and by Geographic Divisions
In Dollars



Note: Costs for Maryland, Delaware and District of Columbia are combined in the reports of the Census Bureau. Costs for Delaware, and for Maryland and D.C., have been estimated on the assumption that total costs are in proportion to total primary power.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

Cost of Construction and of Real Estate, per Horse-Power, up to 1912, 1907 and 1902
By States and by Geographic Divisions, in Order of Costs in 1912
In Dollars

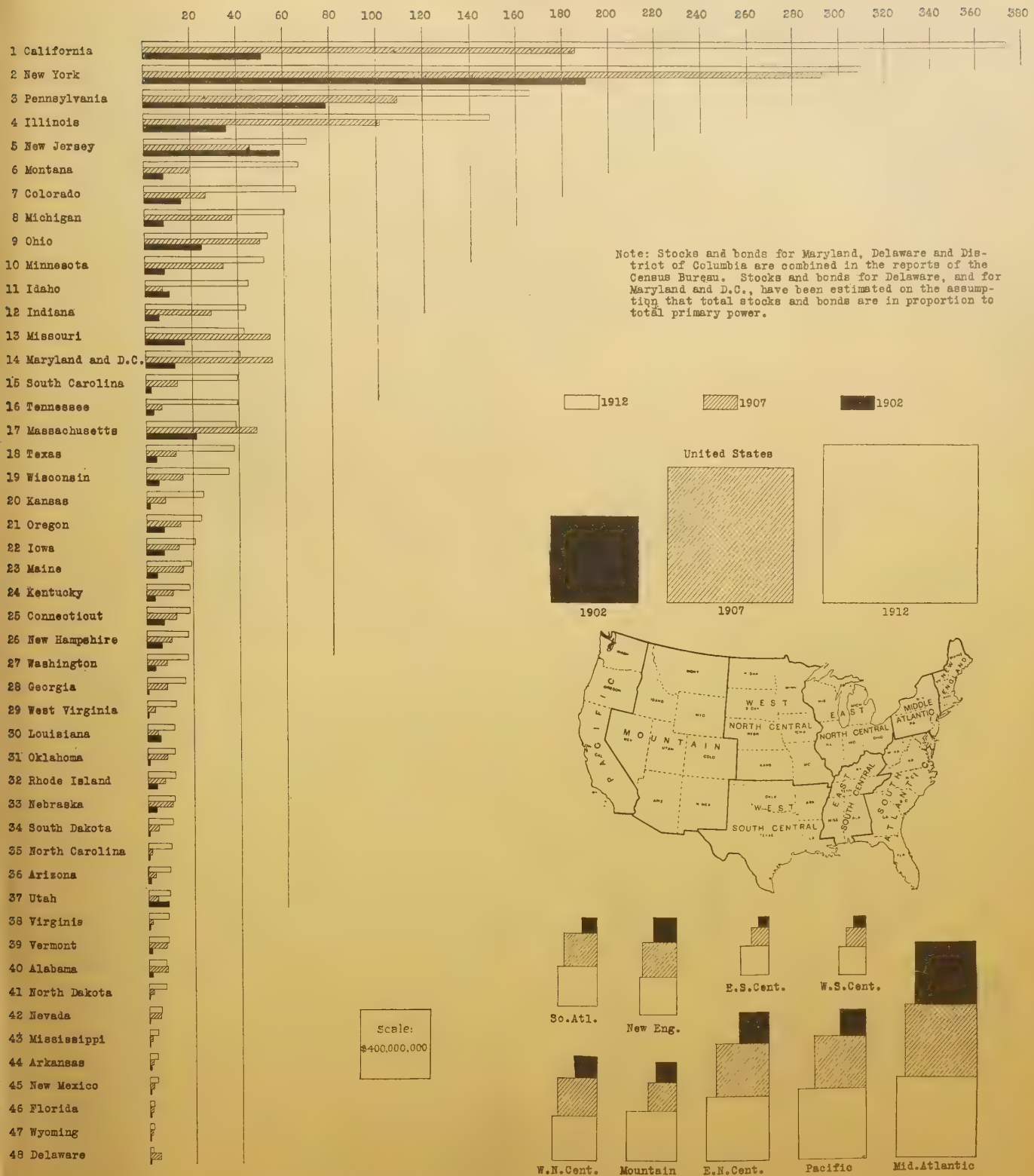


Note: Costs for Maryland, Delaware and District of Columbia are combined in the reports of the Census Bureau; consequently costs per horse-power for Delaware, and for Maryland and D.C., as shown on this diagram are the average combined costs.

To accompany report on Sen. Res. No. 544, 63rd. Cong.,3rd. Sess.

COMMERCIAL CENTRAL STATIONS

Stocks and Bonds in 1912, 1907 and 1902
By States and by Geographic Divisions
In Million of Dollars

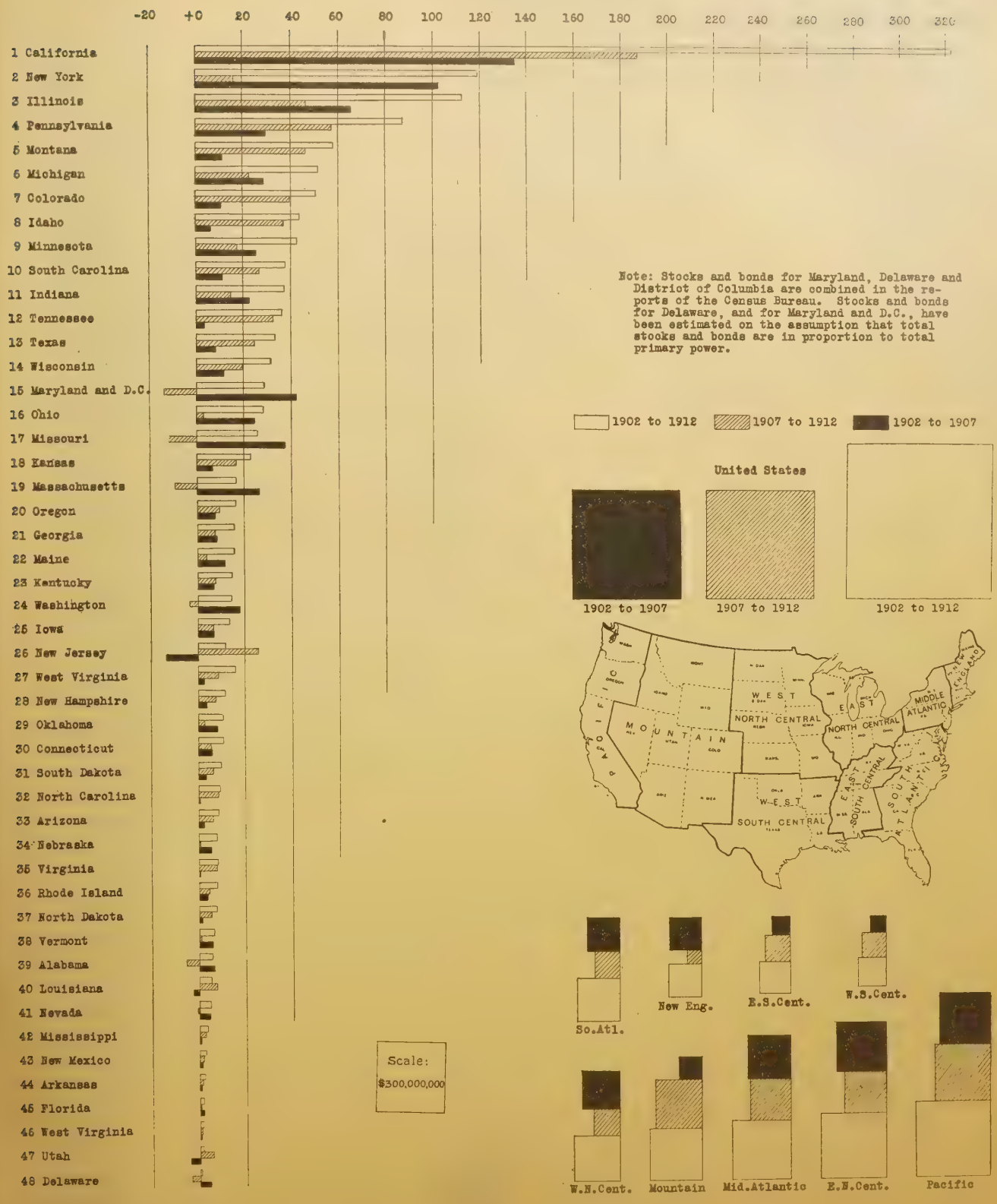


Note: Stocks and bonds for Maryland, Delaware and District of Columbia are combined in the reports of the Census Bureau. Stocks and bonds for Delaware, and for Maryland and D.C., have been estimated on the assumption that total stocks and bonds are in proportion to total primary power.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

COMMERCIAL CENTRAL STATIONS

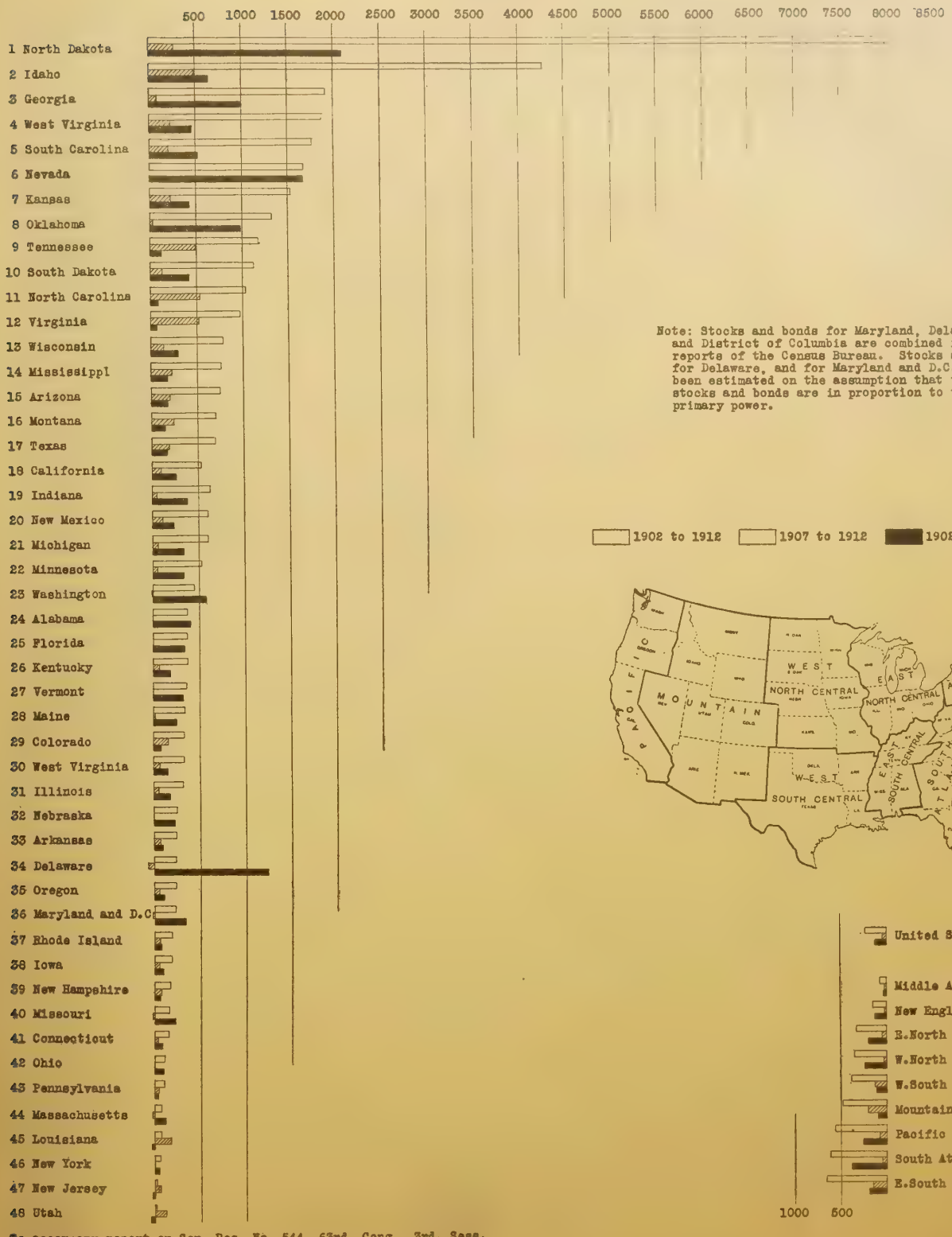
Increase in Stocks and Bonds, 1902 to 1912, 1907 to 1912, and 1902 to 1907
By States and by Geographic Divisions



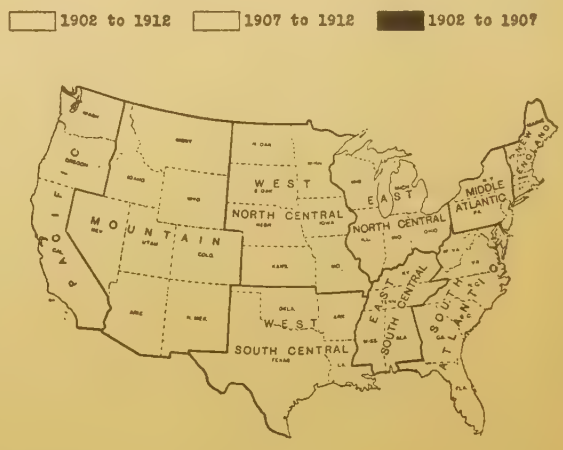
Note: Stocks and bonds for Maryland, Delaware and District of Columbia are combined in the reports of the Census Bureau. Stocks and bonds for Delaware, and for Maryland and D.C., have been estimated on the assumption that total stocks and bonds are in proportion to total primary power.

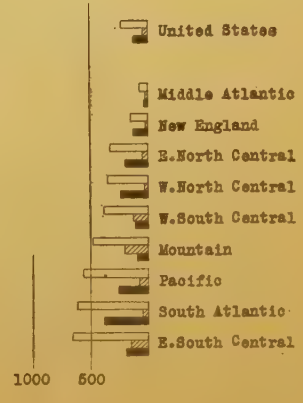
To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

Percentage Increases in Stocks and Bonds, 1902 to 1912, 1907 to 1912, and 1902 to 1907
By States and by Geographic Divisions
In Per Cent of Amounts at the Beginning of Each Period



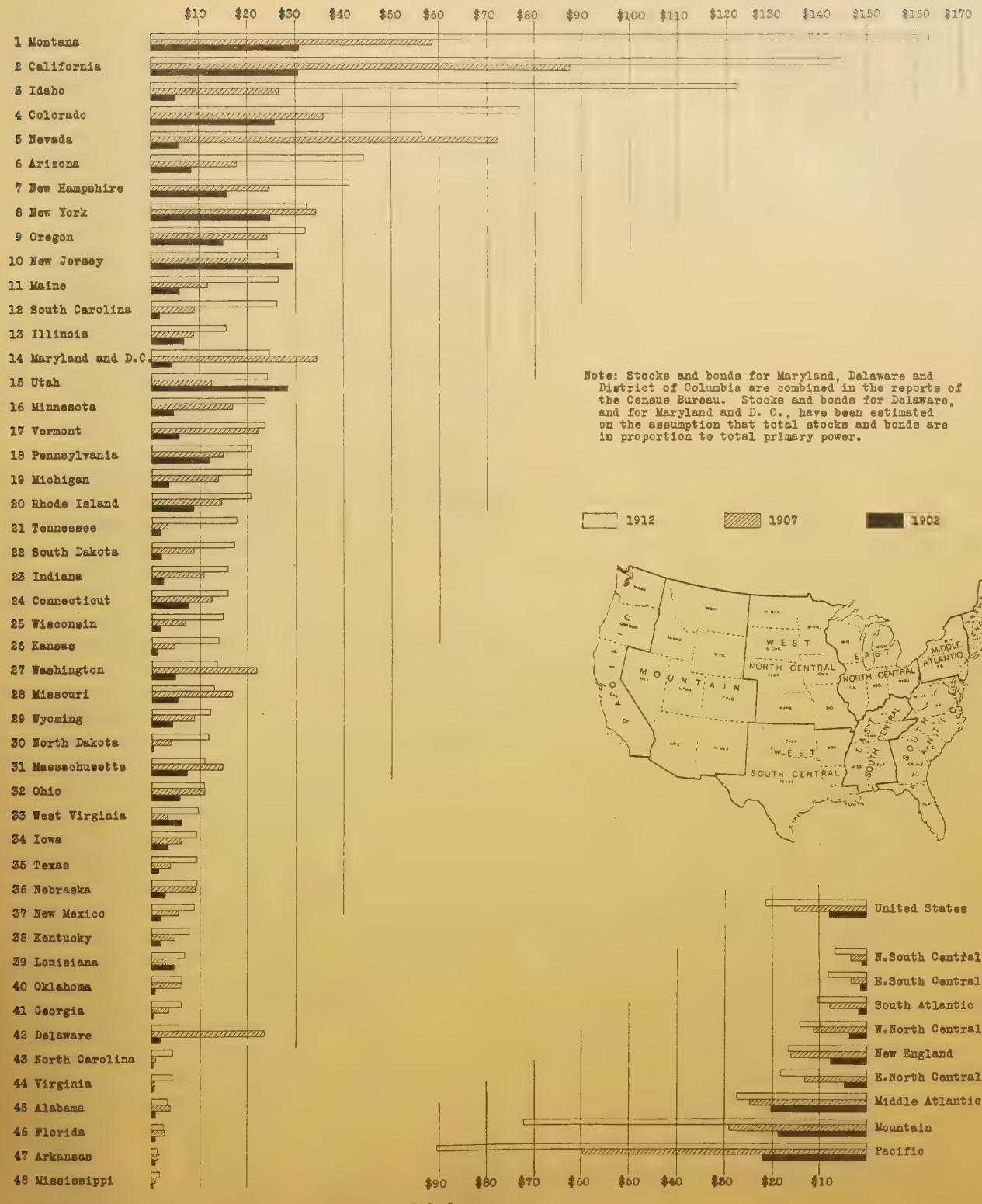
Note: Stocks and bonds for Maryland, Delaware and District of Columbia are combined in the reports of the Census Bureau. Stocks and bonds for Delaware, and for Maryland and D.C., have been estimated on the assumption that total stocks and bonds are in proportion to total primary power.





To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

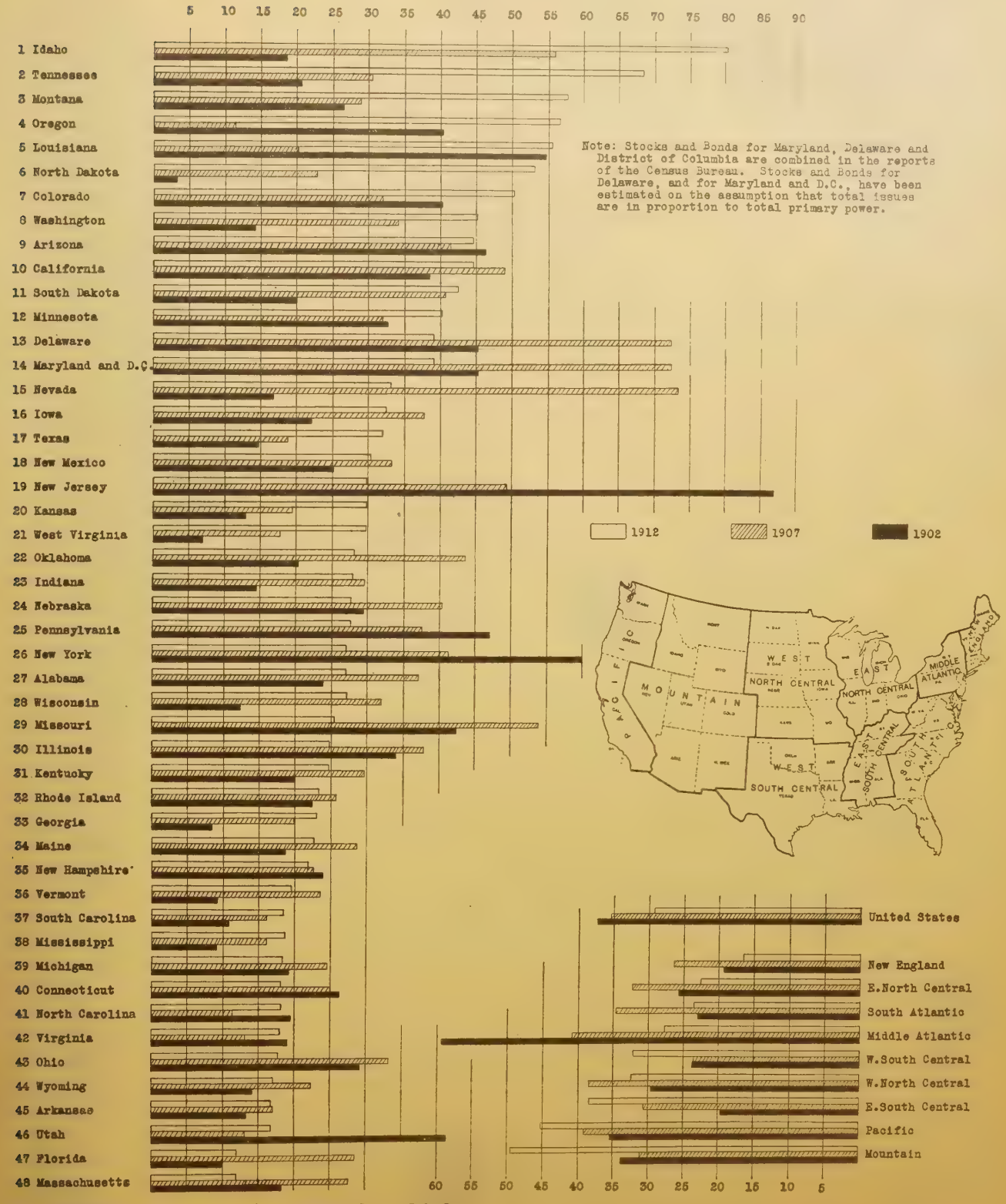
Stocks and Bonds Per Capita, in 1912, 1907 and 1902
By States and by Geographic Divisions
In Order of 1912 Figures



To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

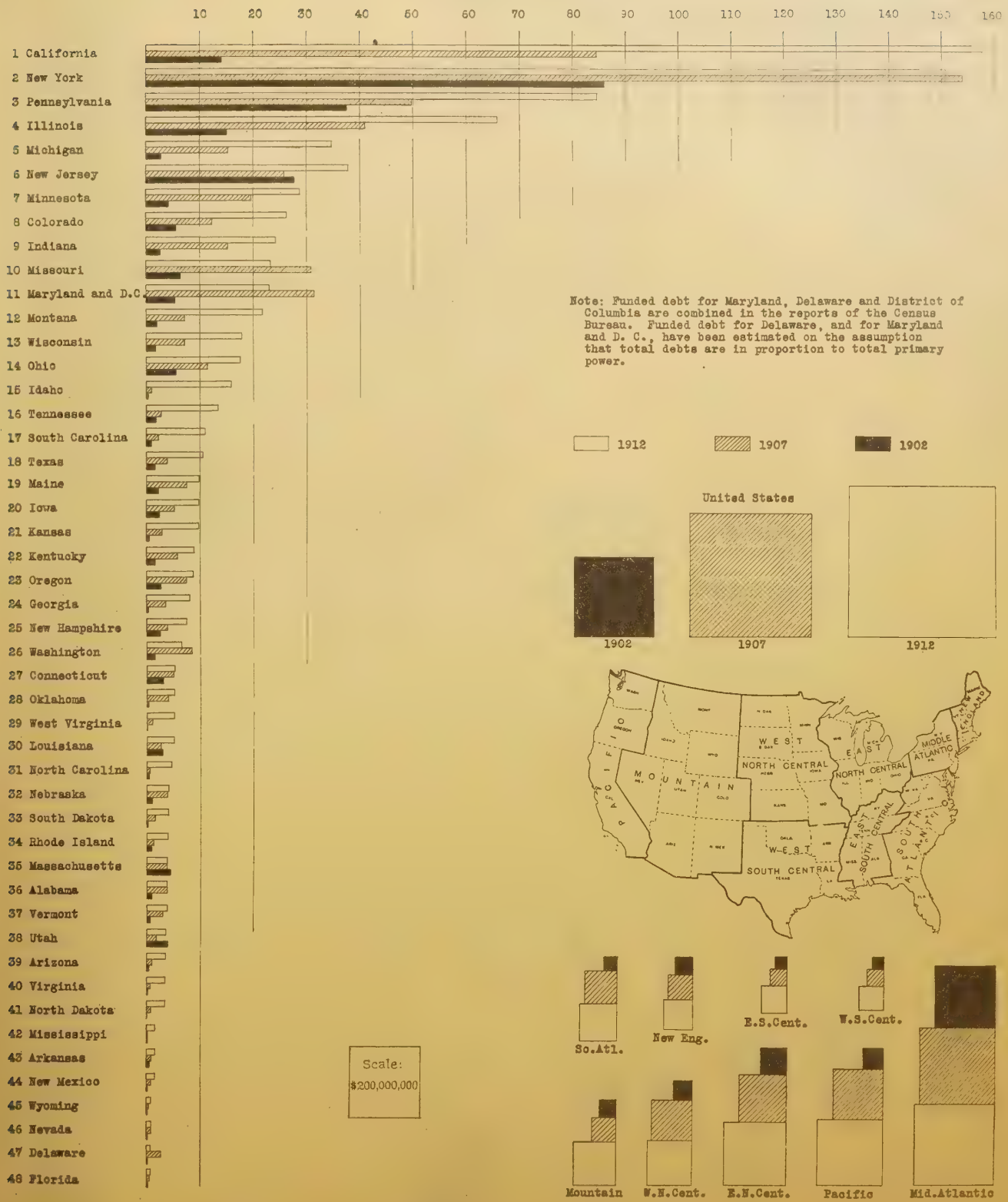
COMMERCIAL CENTRAL STATIONS

Stocks and Bonds Per Horse-Power of Primary Power, in 1912, 1907 and 1902
By States and by Geographic Divisions
In Order of 1912 Figures



To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

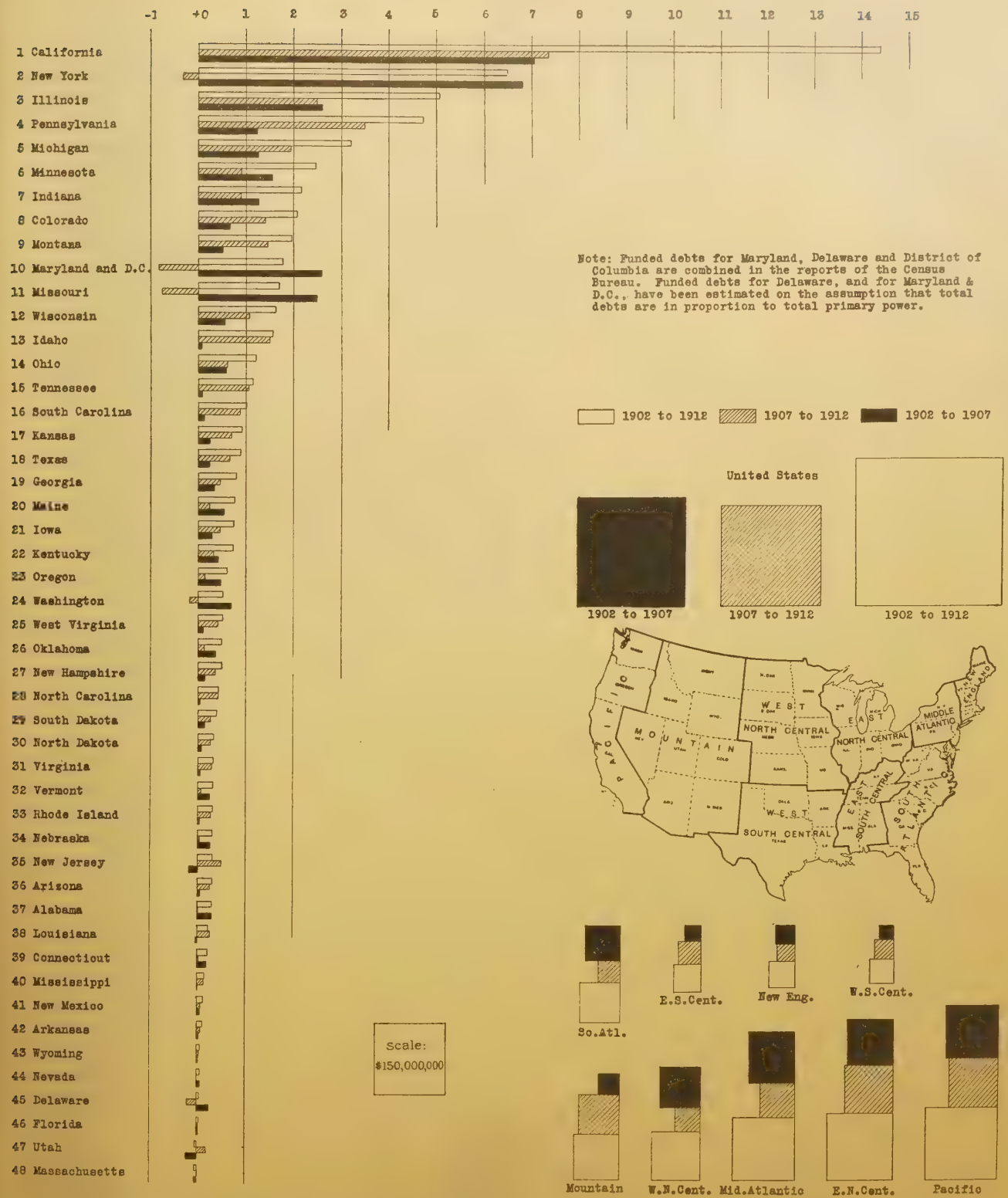
Funded Debt in 1912, 1907 and 1902
By States and by Geographic Divisions
In Millions of Dollars



Note: Funded debt for Maryland, Delaware and District of Columbia are combined in the reports of the Census Bureau. Funded debt for Delaware, and for Maryland and D. C., have been estimated on the assumption that total debts are in proportion to total primary power.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

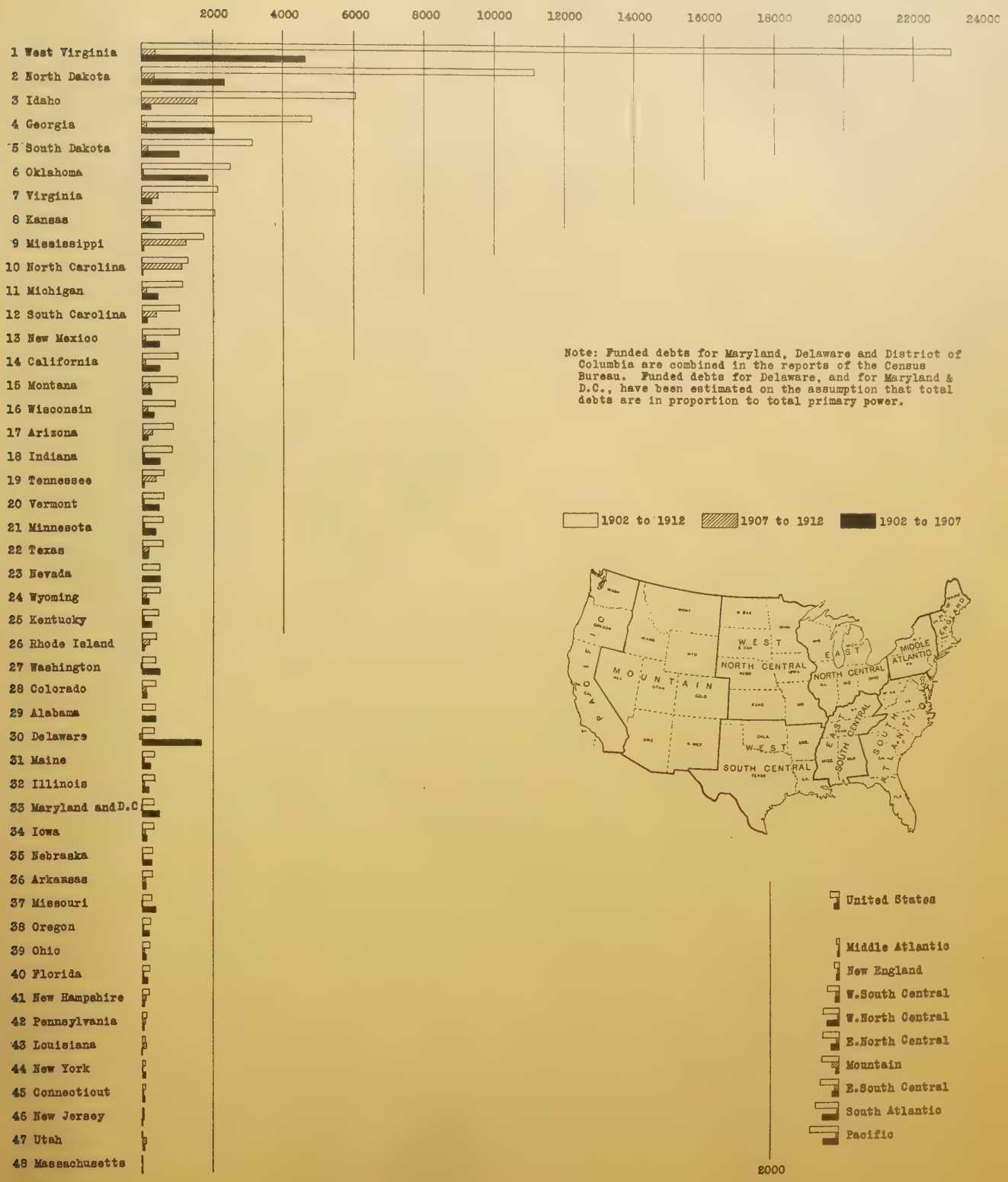
Increase in Funded Debt, 1902 to 1912, 1907 to 1912, and 1902 to 1907
By States and by Geographic Divisions
In Millions of Dollars



Note: Funded debts for Maryland, Delaware and District of Columbia are combined in the reports of the Census Bureau. Funded debts for Delaware, and for Maryland & D.C., have been estimated on the assumption that total debts are in proportion to total primary power.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

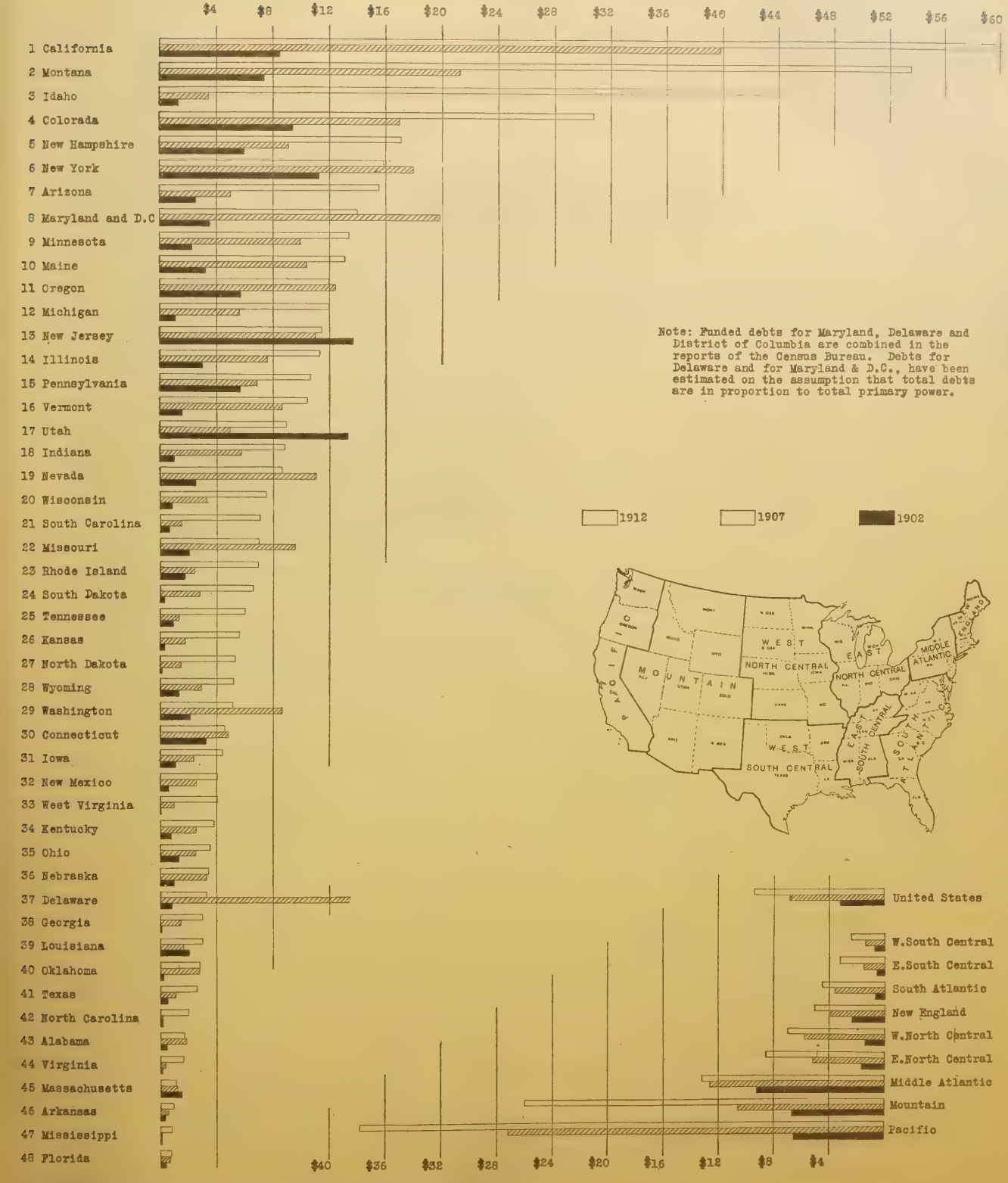
Percentage Increases in Funded Debt, 1902 to 1912, 1907 to 1912, and 1902 to 1907
By States and by Geographic Divisions
In Per Cent of Debt at Beginning of Each Period



Note: Funded debts for Maryland, Delaware and District of Columbia are combined in the reports of the Census Bureau. Funded debts for Delaware, and for Maryland & D.C., have been estimated on the assumption that total debts are in proportion to total primary power.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

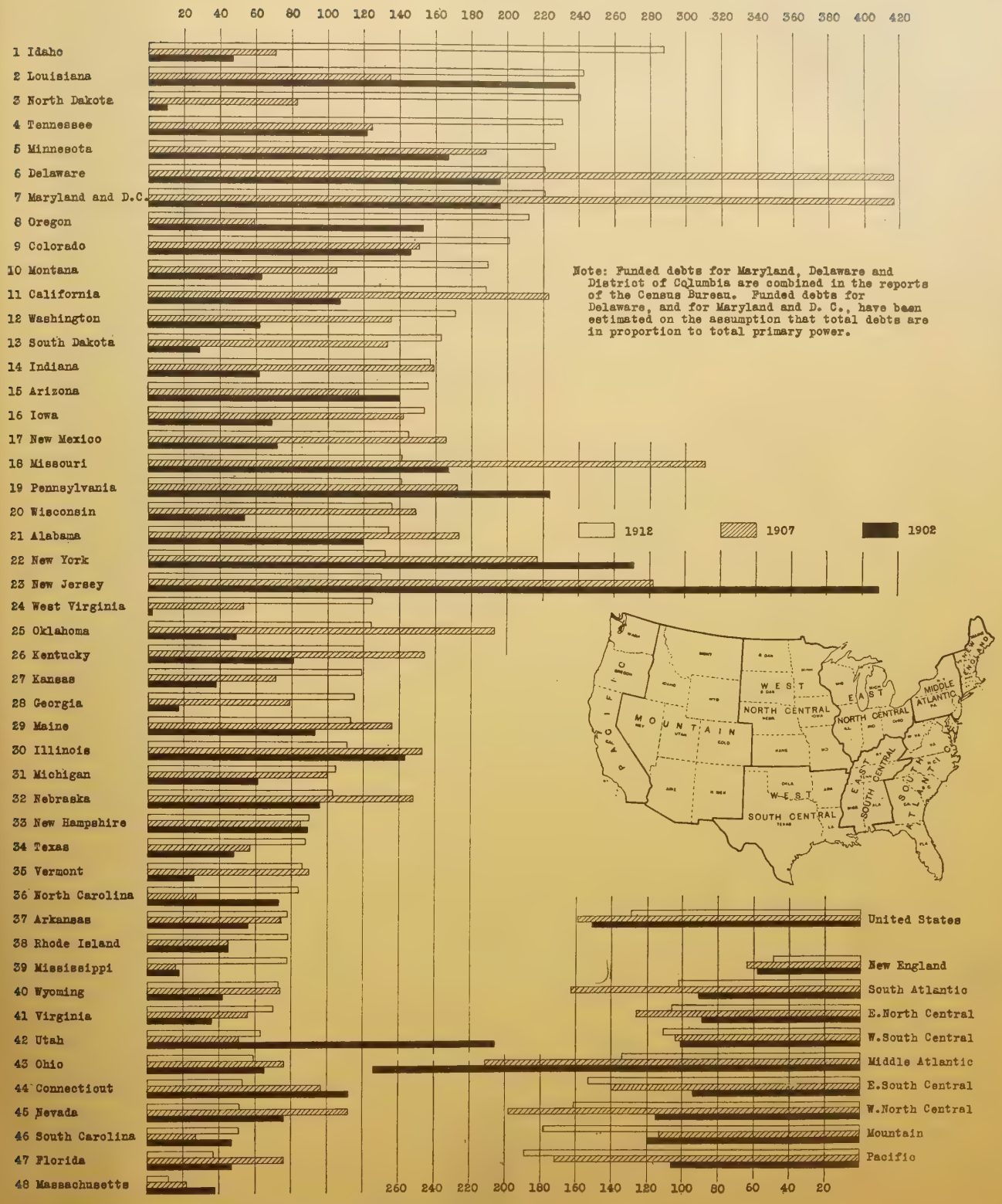
Funded Debt per Capita, in 1912, 1907 and 1902
By States and by Geographic Divisions
In Order of 1912 Figures



Note: Funded debts for Maryland, Delaware and District of Columbia are combined in the reports of the Census Bureau. Debts for Delaware and for Maryland & D.C., have been estimated on the assumption that total debts are in proportion to total primary power.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

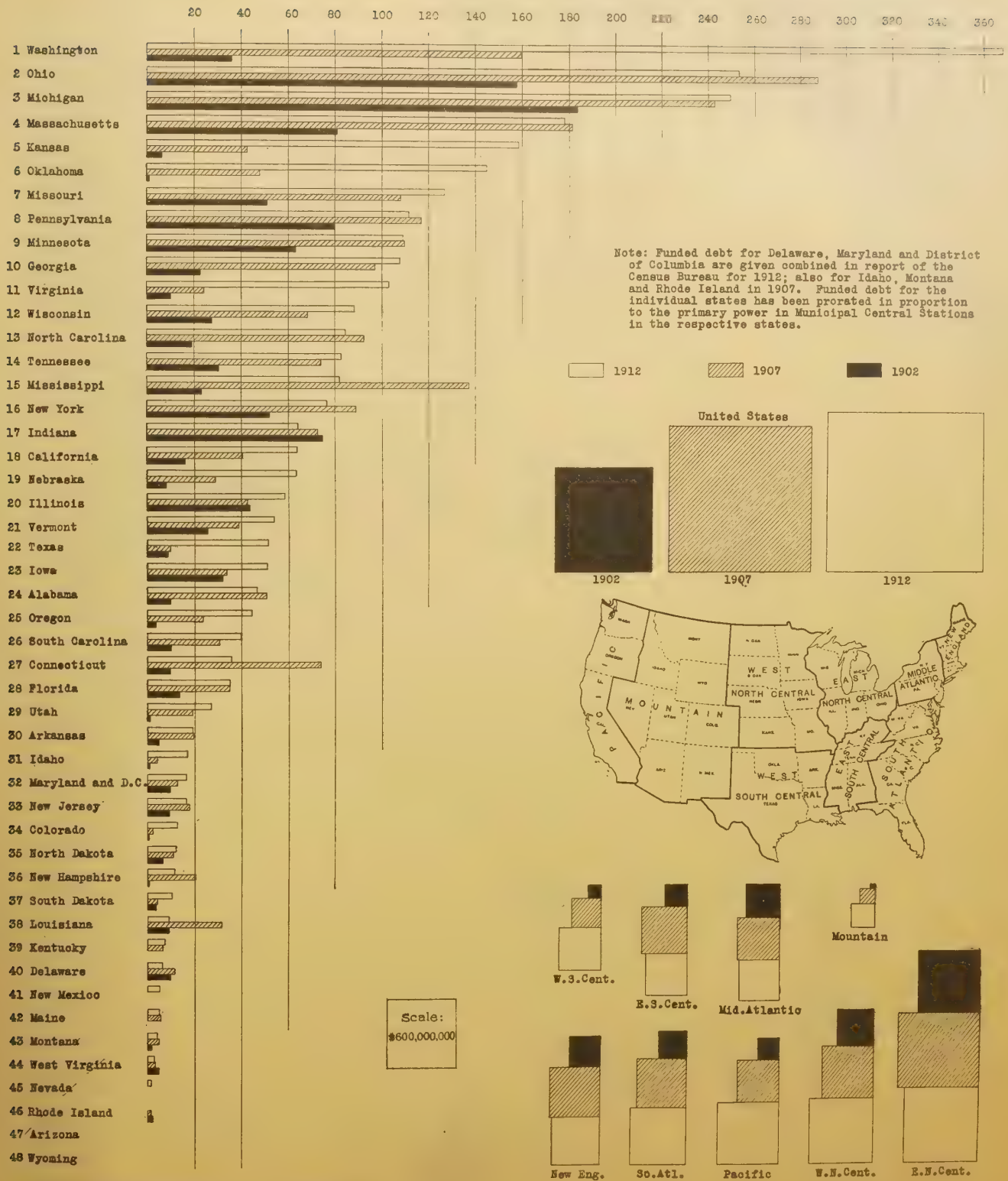
Funded Debt Per Horse-Power, in 1912, 1907 and 1902
By States and by Geographic Divisions
In Order of Debt in 1912



To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

MUNICIPAL CENTRAL STATIONS

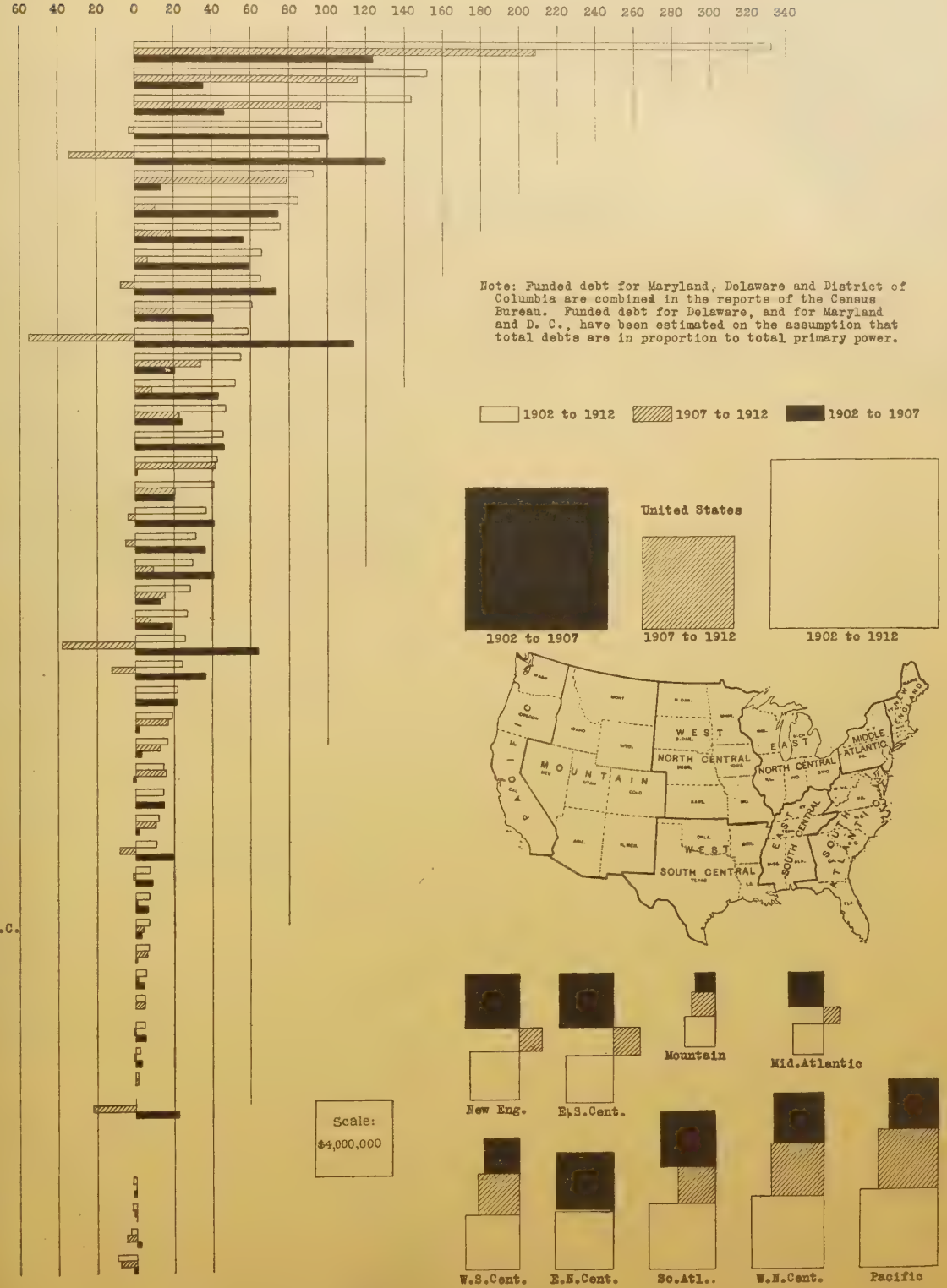
Funded Debt in 1912, 1907 and 1902
By States and by Geographic Divisions
In Tens of Thousands of Dollars



Note: Funded debt for Delaware, Maryland and District of Columbia are given combined in report of the Census Bureau for 1912; also for Idaho, Montana and Rhode Island in 1907. Funded debt for the individual states has been prorated in proportion to the primary power in Municipal Central Stations in the respective states.

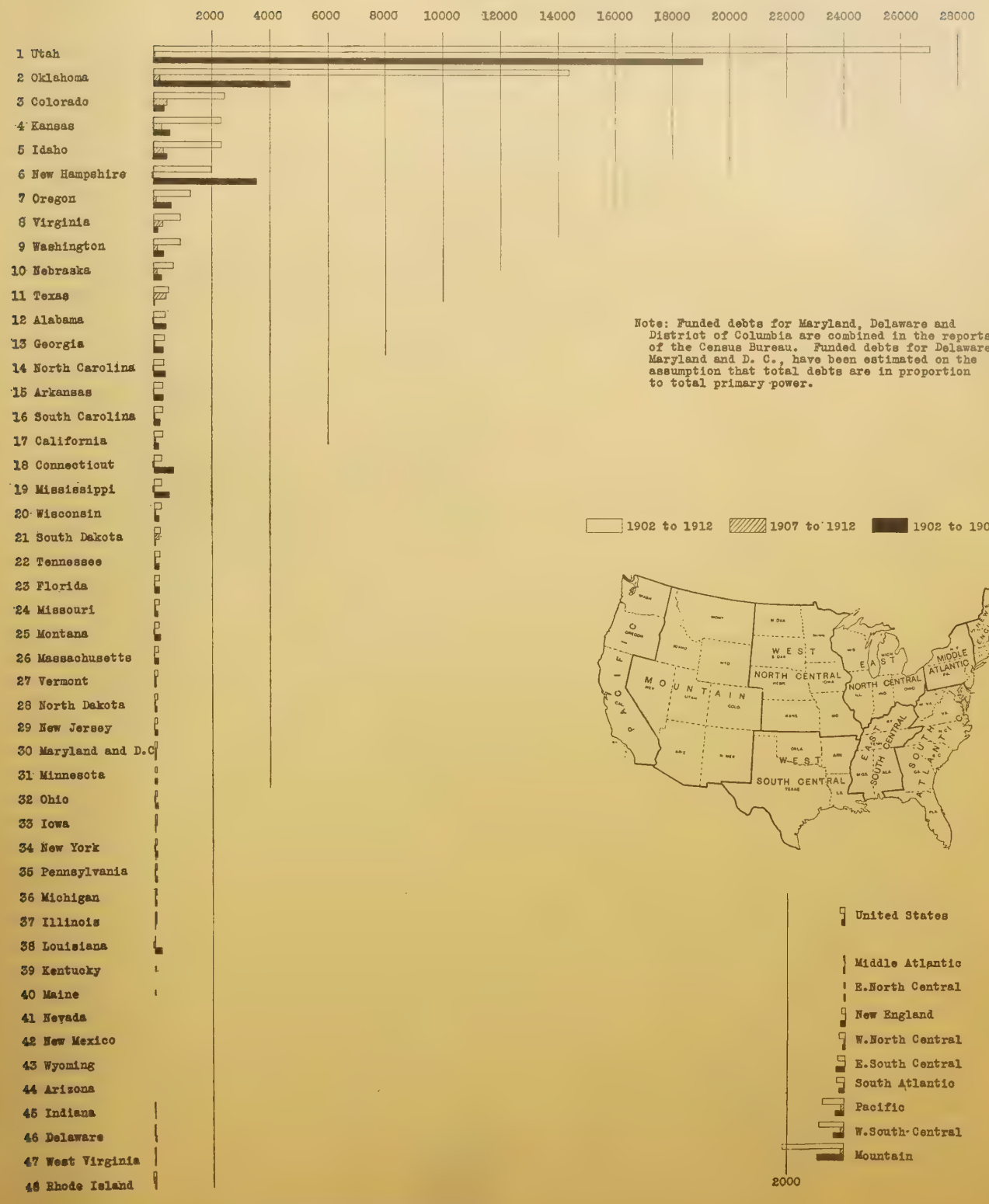
To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

Increase in Funded Debt, 1902 to 1912, 1907 to 1912, and 1902 to 1907
By States and by Geographic Divisions
In Tens of Thousands of Dollars



To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

Percentage Increase in Funded Debt: - 1902 to 1912, 1907 to 1912, and 1902 to 1907
By States and by Geographic Divisions
In Per Cent of Debt at Beginning of Each Period

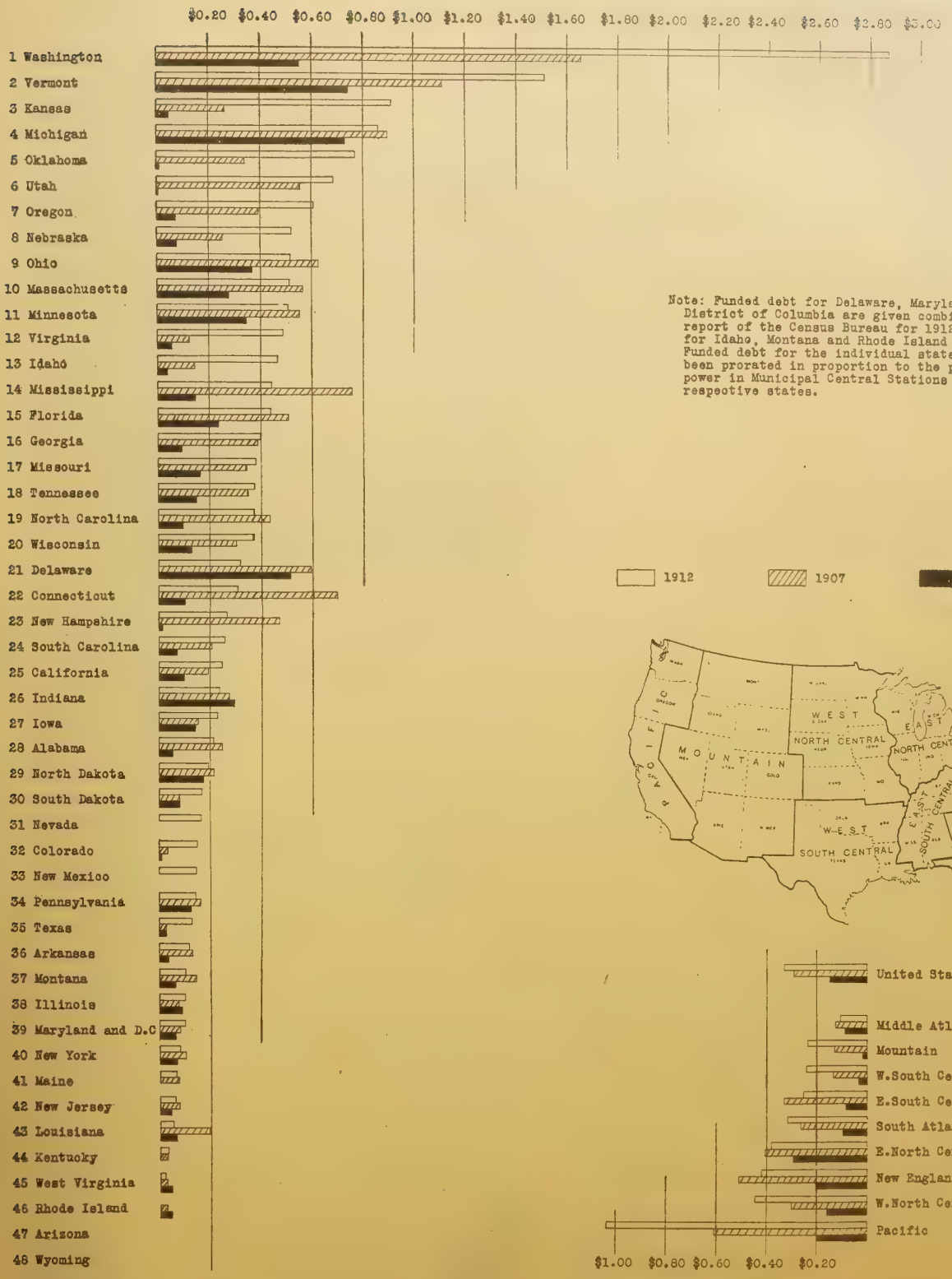


Note: Funded debts for Maryland, Delaware and District of Columbia are combined in the reports of the Census Bureau. Funded debts for Delaware, Maryland and D. C., have been estimated on the assumption that total debts are in proportion to total primary power.

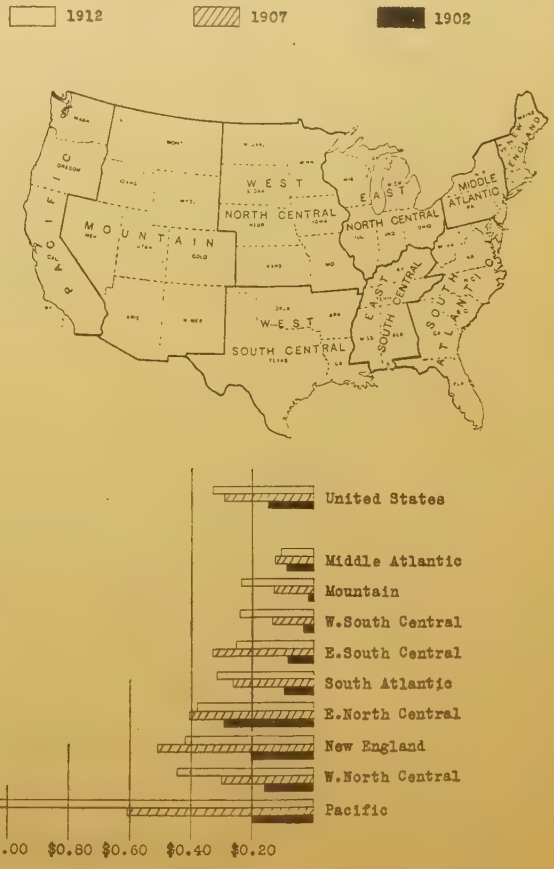
ccompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

MUNICIPAL CENTRAL STATIONS

Funded Debt Per Capita, in 1912, 1907 and 1907
By States and by Geographic Divisions
In Order of Debt in 1912

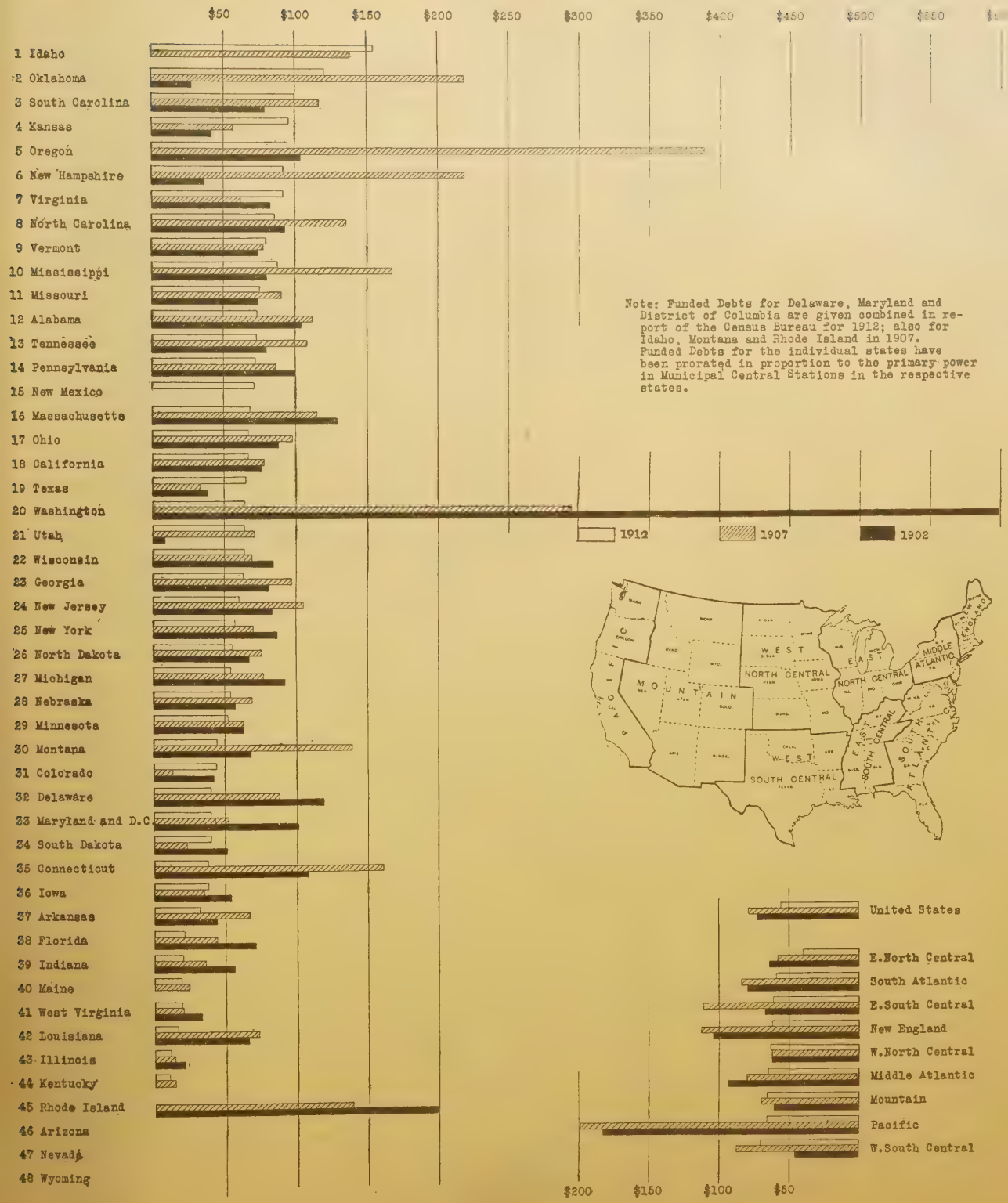


Note: Funded debt for Delaware, Maryland and District of Columbia are given combined in report of the Census Bureau for 1912; also for Idaho, Montana and Rhode Island in 1907. Funded debt for the individual states has been prorated in proportion to the primary power in Municipal Central Stations in the respective states.



To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

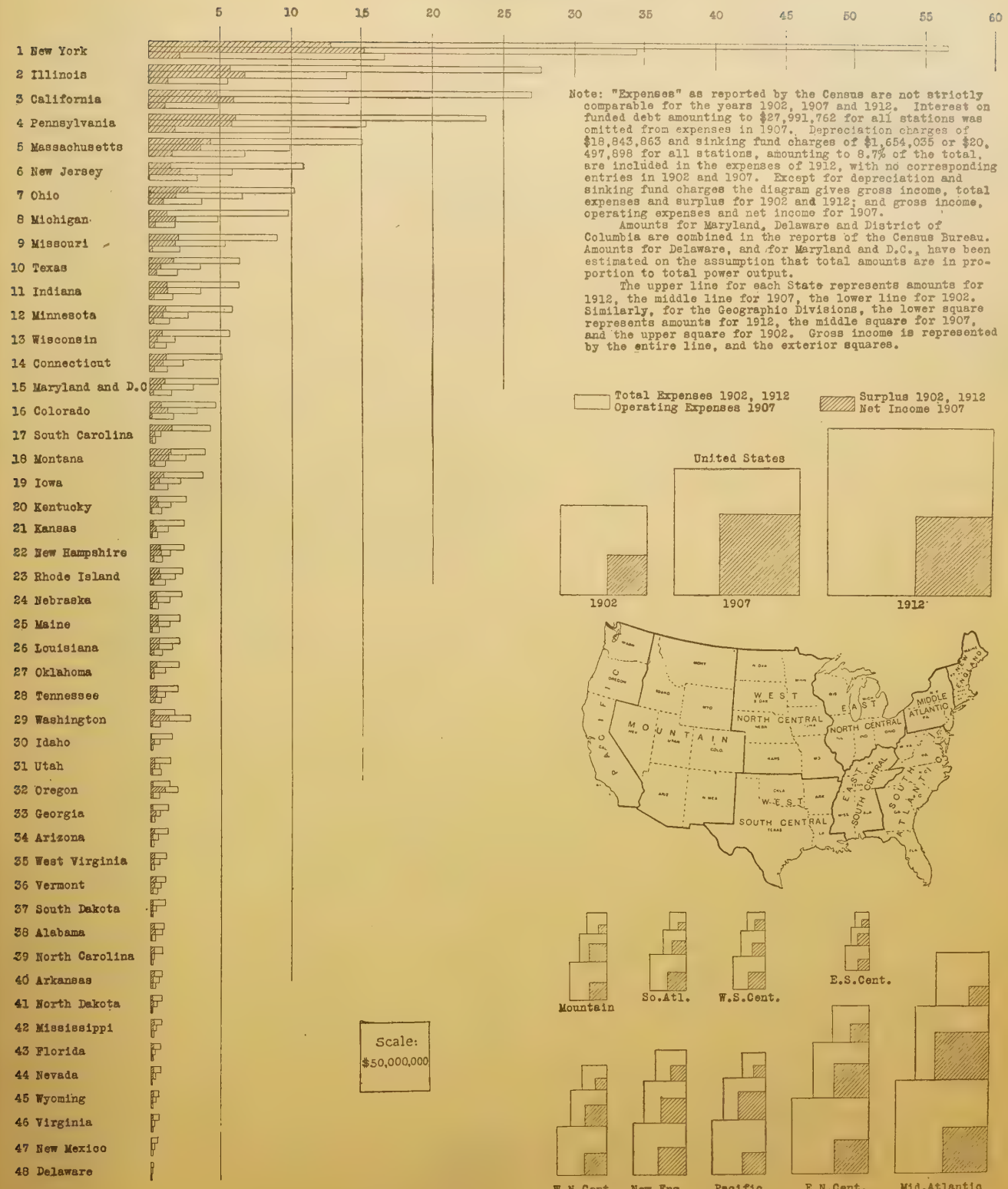
Funded Debt Per Horse-Power, in 1912, 1907 and 1902
By States and by Geographic Divisions
In Order of Debt in 1912



Note: Funded Debts for Delaware, Maryland and District of Columbia are given combined in report of the Census Bureau for 1912; also for Idaho, Montana and Rhode Island in 1907. Funded Debts for the individual states have been prorated in proportion to the primary power in Municipal Central Stations in the respective states.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

Income, Expenses and Surplus, 1912, 1907 and 1902
By States and by Geographic Divisions
In Millions of Dollars



Note: "Expenses" as reported by the Census are not strictly comparable for the years 1902, 1907 and 1912. Interest on funded debt amounting to $27,991,762 for all stations was omitted from expenses in 1907. Depreciation charges of $18,843,863 and sinking fund charges of $1,654,035 or $20,497,898 for all stations, amounting to 8.7% of the total, are included in the expenses of 1912, with no corresponding entries in 1902 and 1907. Except for depreciation and sinking fund charges the diagram gives gross income, total expenses and surplus for 1902 and 1912; and gross income, operating expenses and net income for 1907.

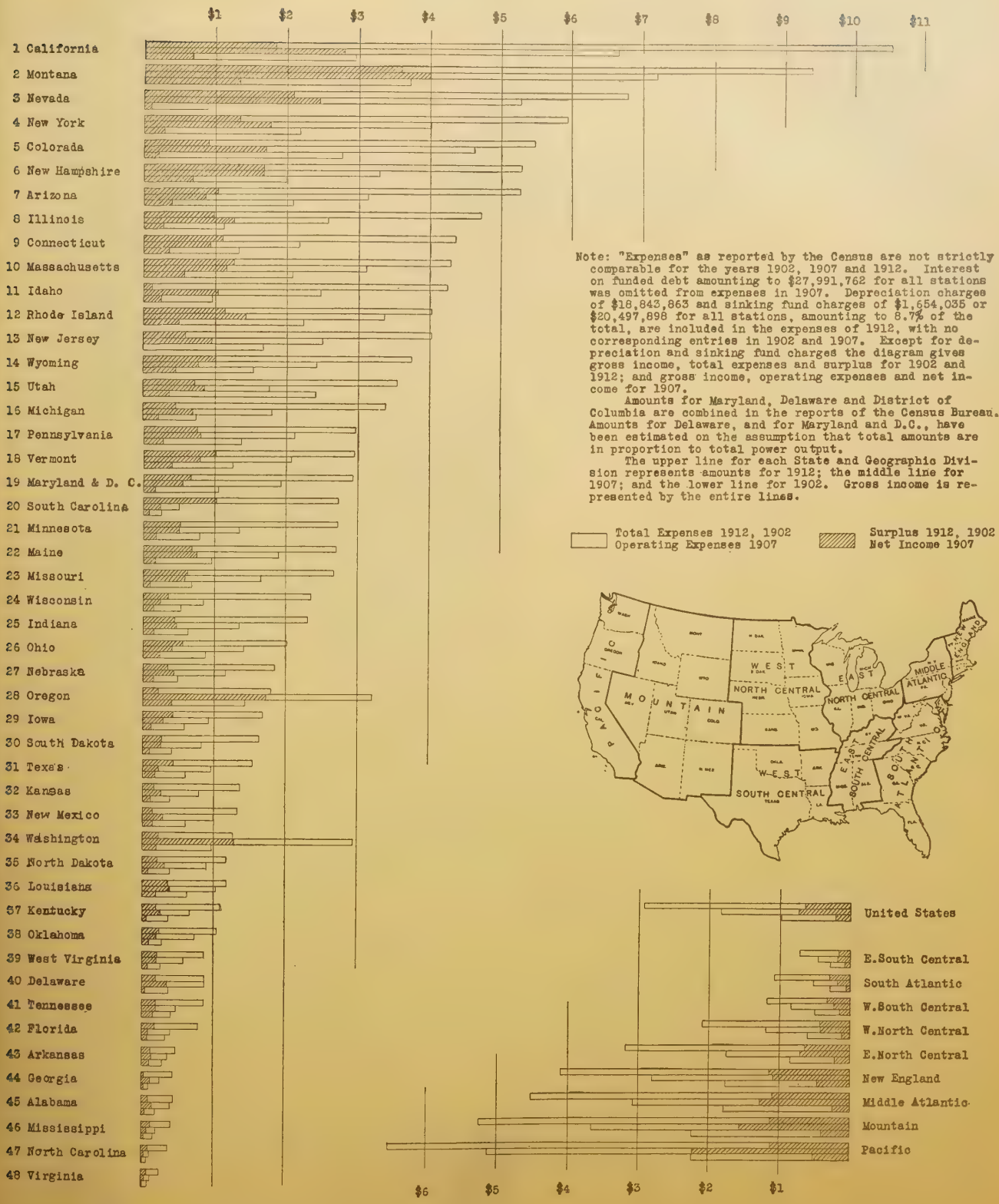
Amounts for Maryland, Delaware and District of Columbia are combined in the reports of the Census Bureau. Amounts for Delaware, and for Maryland and D.C., have been estimated on the assumption that total amounts are in proportion to total power output.

The upper line for each State represents amounts for 1912, the middle line for 1907, the lower line for 1902. Similarly, for the Geographic Divisions, the lower square represents amounts for 1912, the middle square for 1907, and the upper square for 1902. Gross income is represented by the entire line, and the exterior squares.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

COMMERCIAL CENTRAL STATIONS

Income, Expenses and Surplus, Per Capita, 1912, 1907 and 1902
By States and by Geographic Divisions
In Order of 1912 Figures



Note: "Expenses" as reported by the Census are not strictly comparable for the years 1902, 1907 and 1912. Interest on funded debt amounting to $27,991,762 for all stations was omitted from expenses in 1907. Depreciation charges of $18,843,863 and sinking fund charges of $1,654,035 or $20,497,898 for all stations, amounting to 8.7% of the total, are included in the expenses of 1912, with no corresponding entries in 1902 and 1907. Except for depreciation and sinking fund charges the diagram gives gross income, total expenses and surplus for 1902 and 1912; and gross income, operating expenses and net income for 1907.

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The upper line for each State and Geographic Division represents amounts for 1912; the middle line for 1907; and the lower line for 1902. Gross income is represented by the entire lines.

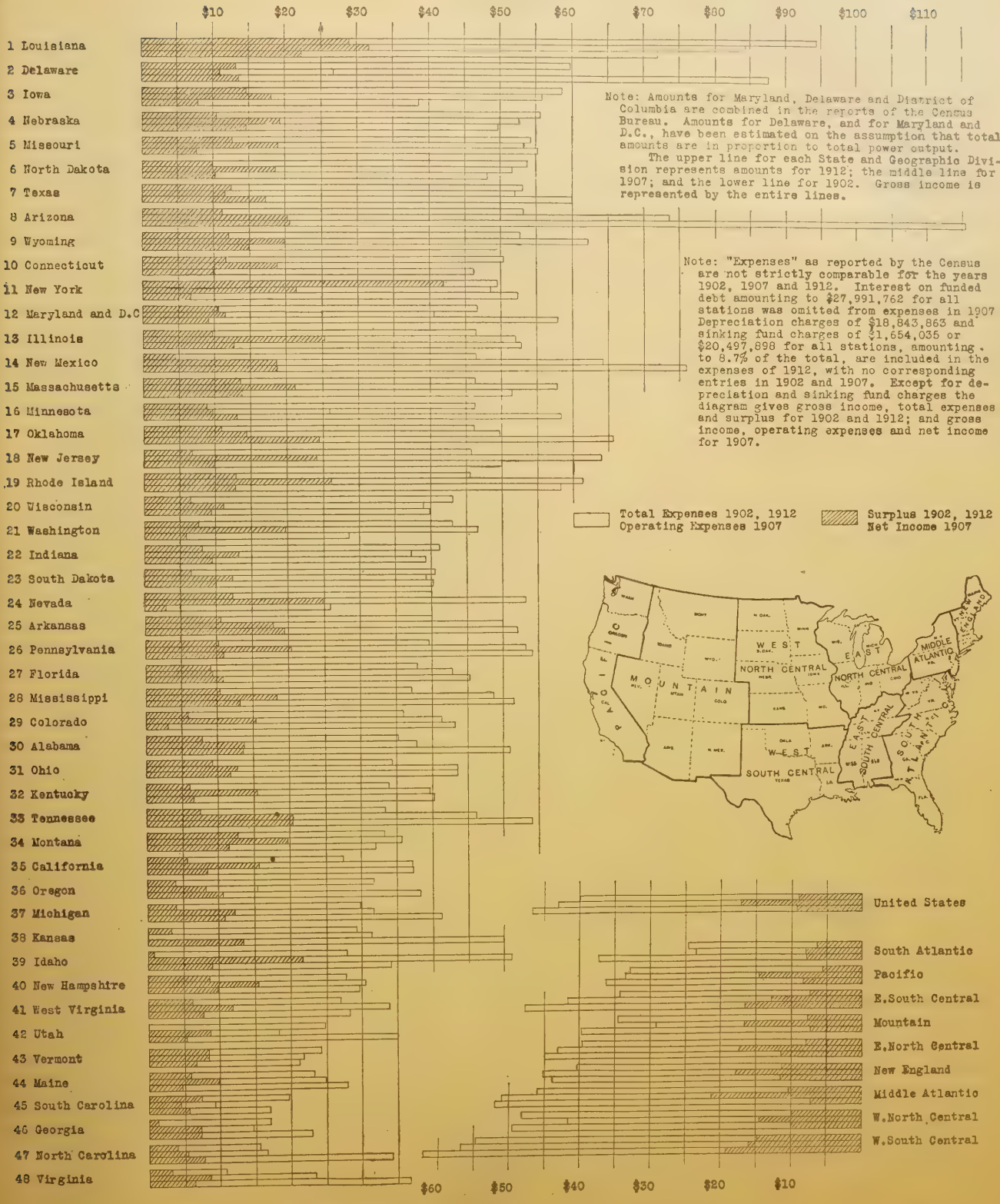
Total Expenses 1912, 1902
Operating Expenses 1907

Surplus 1912, 1902
Net Income 1907

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess

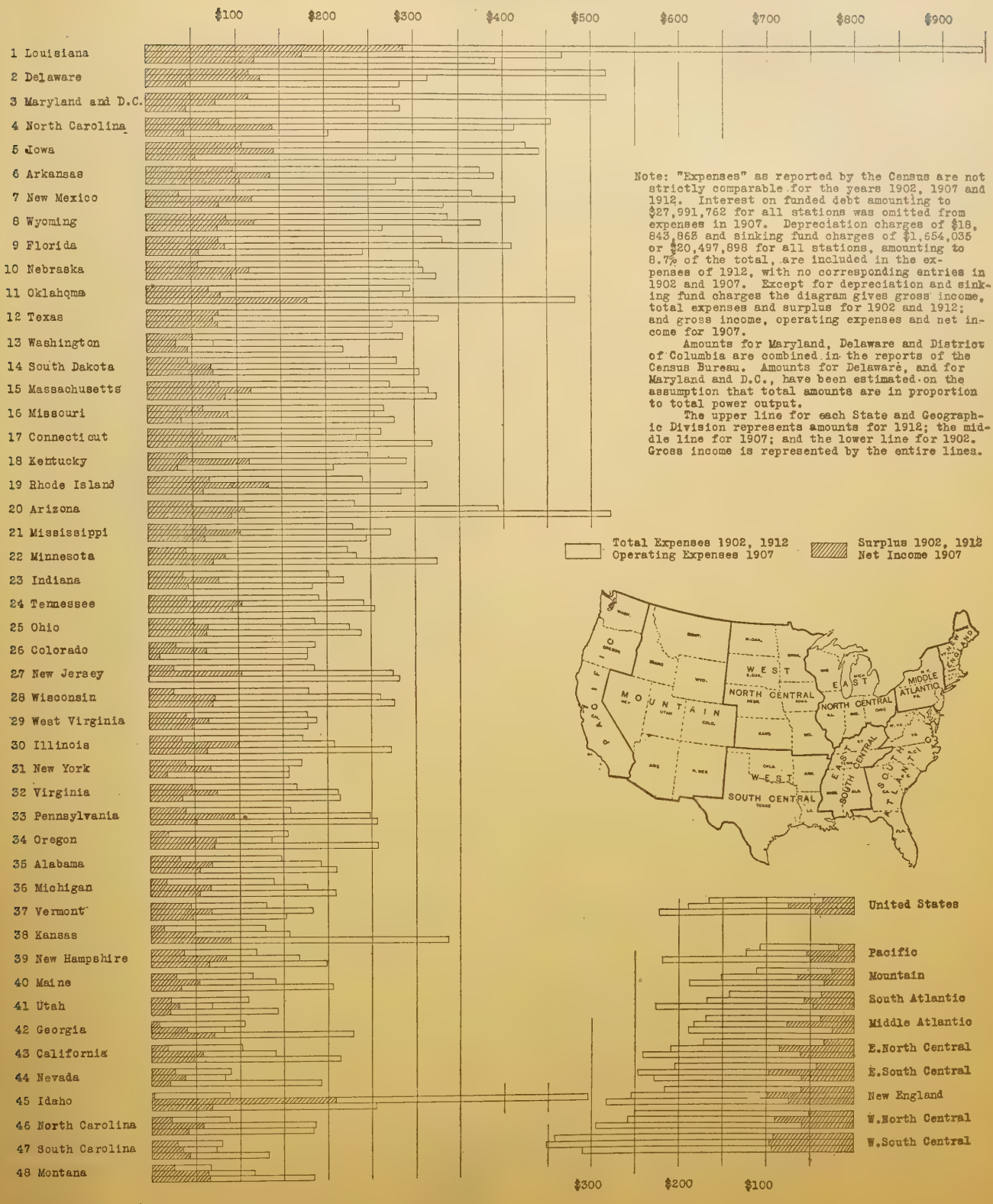
COMMERCIAL CENTRAL STATIONS

Income, Expenses and Surplus, Per Horse-Power of Primary Power, 1912, 1907 and 1902
By States and by Geographic Divisions
In Order of 1912 Figures



To accompany report on Sen. Res. No. 544, 62rd. Cong., 3rd. Sess.

Income, Expenses and Surplus, Per Horse-Power Year of Output, 1912, 1907 and 1902
By States and by Geographic Divisions
In Order of 1912 Figures



Note: "Expenses" as reported by the Census are not strictly comparable for the years 1902, 1907 and 1912. Interest on funded debt amounting to $27,991,762 for all stations was omitted from expenses in 1907. Depreciation charges of $18,843,865 and sinking fund charges of $1,654,035 or $20,497,898 for all stations, amounting to 8.7% of the total, are included in the expenses of 1912, with no corresponding entries in 1902 and 1907. Except for depreciation and sinking fund charges the diagram gives gross income, total expenses and surplus for 1902 and 1912; and gross income, operating expenses and net income for 1907.

Amounts for Maryland, Delaware and District of Columbia are combined in the reports of the Census Bureau. Amounts for Delaware, and for Maryland and D.C., have been estimated on the assumption that total amounts are in proportion to total power output.

The upper line for each State and Geographic Division represents amounts for 1912; the middle line for 1907; and the lower line for 1902. Gross income is represented by the entire lines.

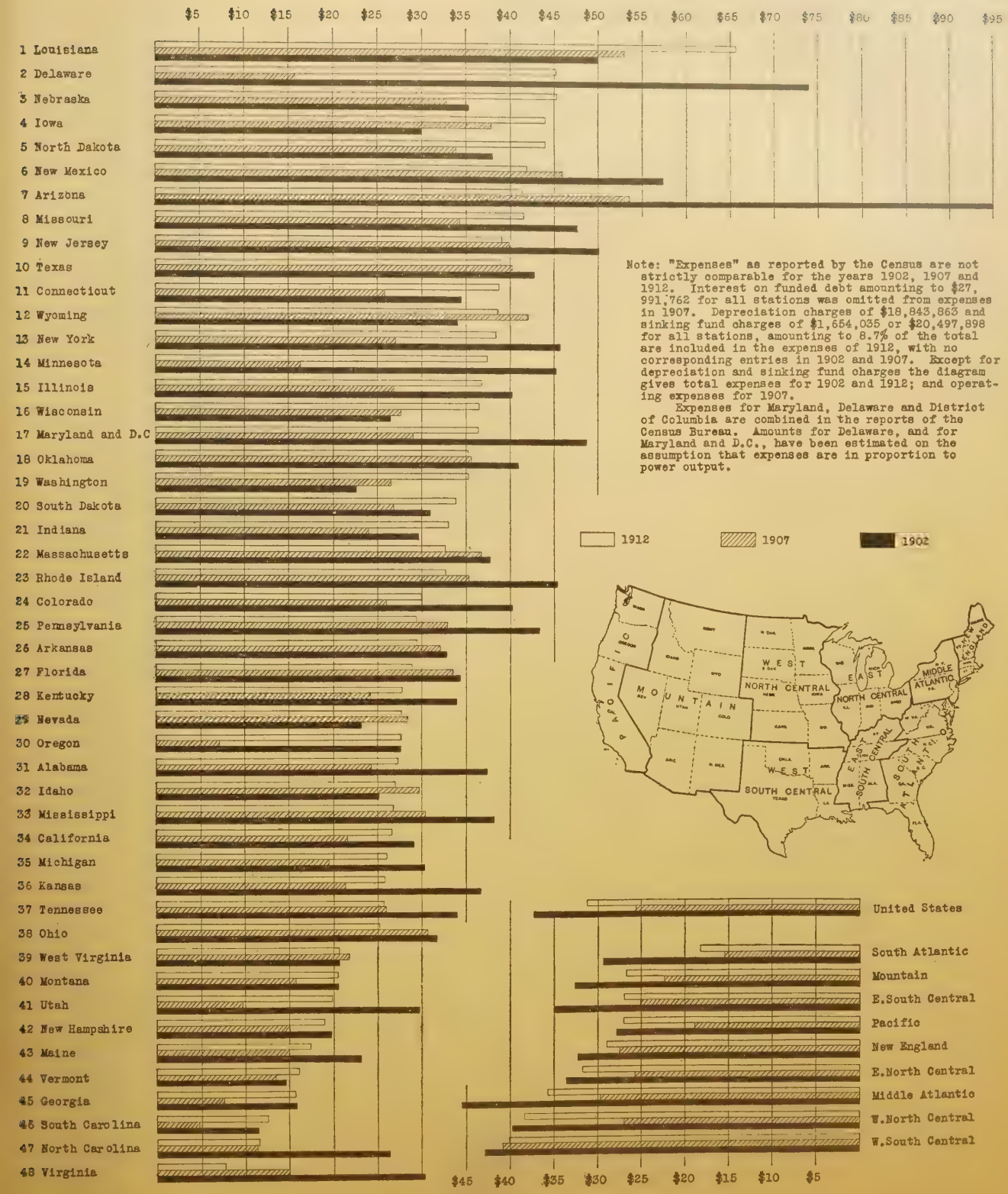
Total Expenses 1902, 1912
Operating Expenses 1907

Surplus 1902, 1912
Net Income 1907

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

COMMERCIAL CENTRAL STATIONS

Expenses Per Horse-Power of Primary Power, 1912, 1907 and 1902
By States and by Geographic Divisions
In Order of 1912 Figures



Note: "Expenses" as reported by the Census are not strictly comparable for the years 1902, 1907 and 1912. Interest on funded debt amounting to $27,991,762 for all stations was omitted from expenses in 1907. Depreciation charges of $18,843,863 and sinking fund charges of $1,654,035 or $20,497,898 for all stations, amounting to 8.7% of the total are included in the expenses of 1912, with no corresponding entries in 1902 and 1907. Except for depreciation and sinking fund charges the diagram gives total expenses for 1902 and 1912; and operating expenses for 1907.

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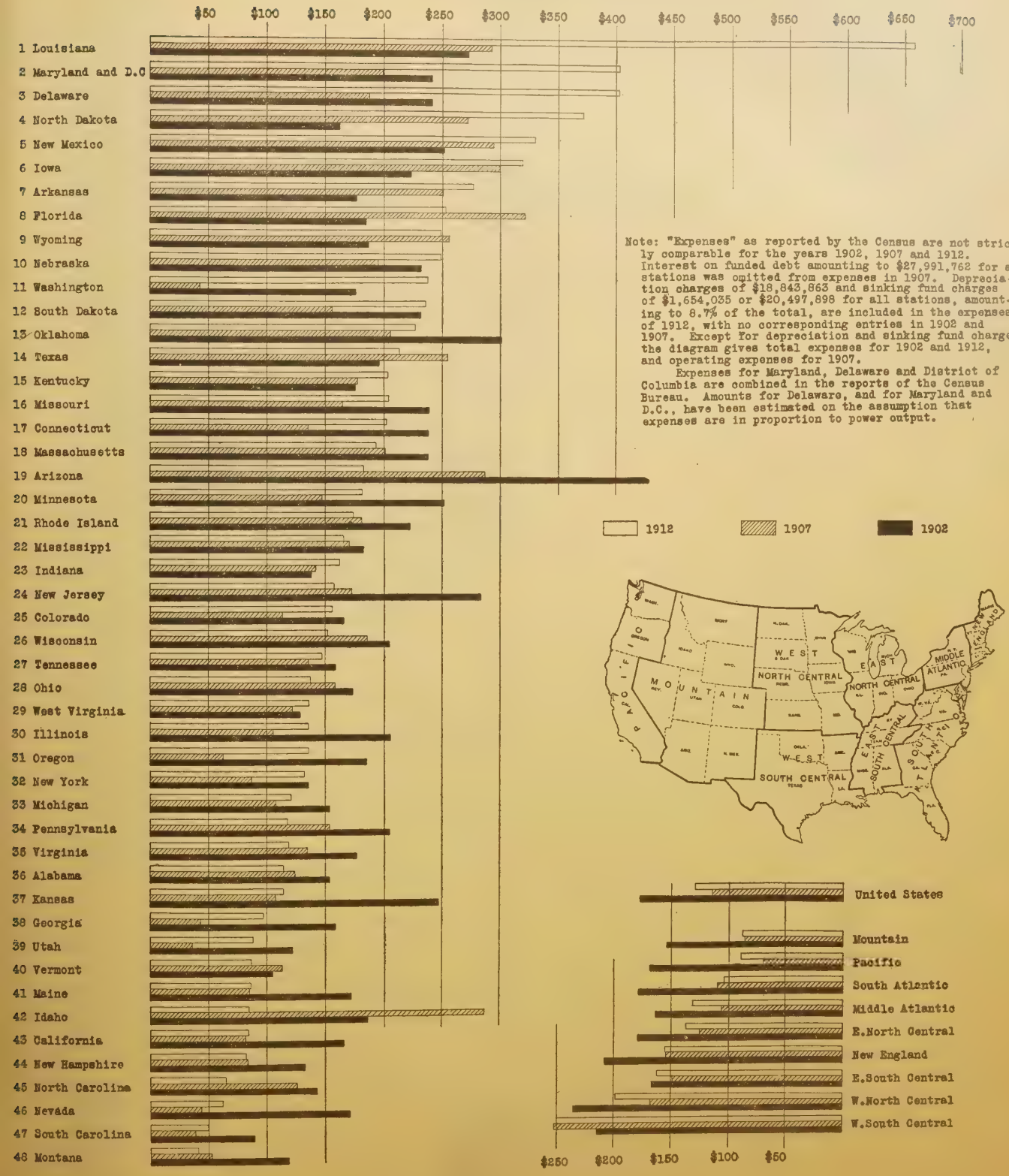
To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

COMMERCIAL CENTRAL STATIONS

Expenses Per Horse-Power Year of Output, 1912, 1907 and 1902
By States and by Geographic Divisions
In Order of 1912 Figures



Note: "Expenses" as reported by the Census are not strictly comparable for the years 1902, 1907 and 1912. Interest on funded debt amounting to $27,991,762 for all stations was omitted from expenses in 1907. Depreciation charges of $18,843,863 and sinking fund charges of $1,654,035 or $20,497,898 for all stations, amounting to 8.7% of the total, are included in the expenses of 1912, with no corresponding entries in 1902 and 1907. Except for depreciation and sinking fund charges the diagram gives total expenses for 1902 and 1912, and operating expenses for 1907.

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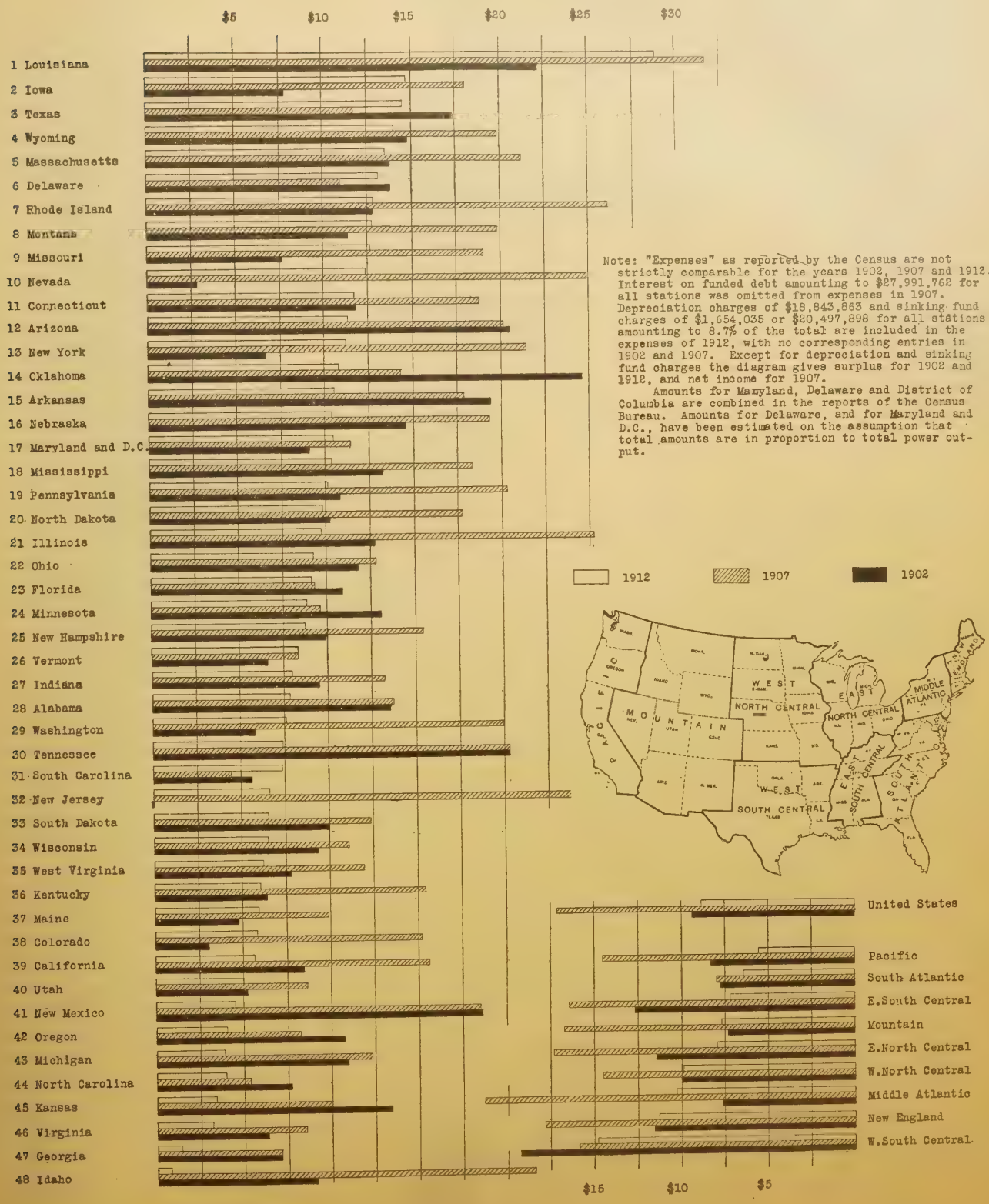
To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

Net Income 1907, and Surplus 1912 and 1902, Per Horse-Power of Primary Power
By States and by Geographic Divisions
In Order of 1912 Figures



Note: "Expenses" as reported by the Census are not strictly comparable for the years 1902, 1907 and 1912. Interest on funded debt amounting to $27,991,762 for all stations was omitted from expenses in 1907. Depreciation charges of $18,843,863 and sinking fund charges of $1,654,035 or $20,497,898 for all stations amounting to 8.7% of the total are included in the expenses of 1912, with no corresponding entries in 1902 and 1907. Except for depreciation and sinking fund charges the diagram gives surplus for 1902 and 1912, and net income for 1907.

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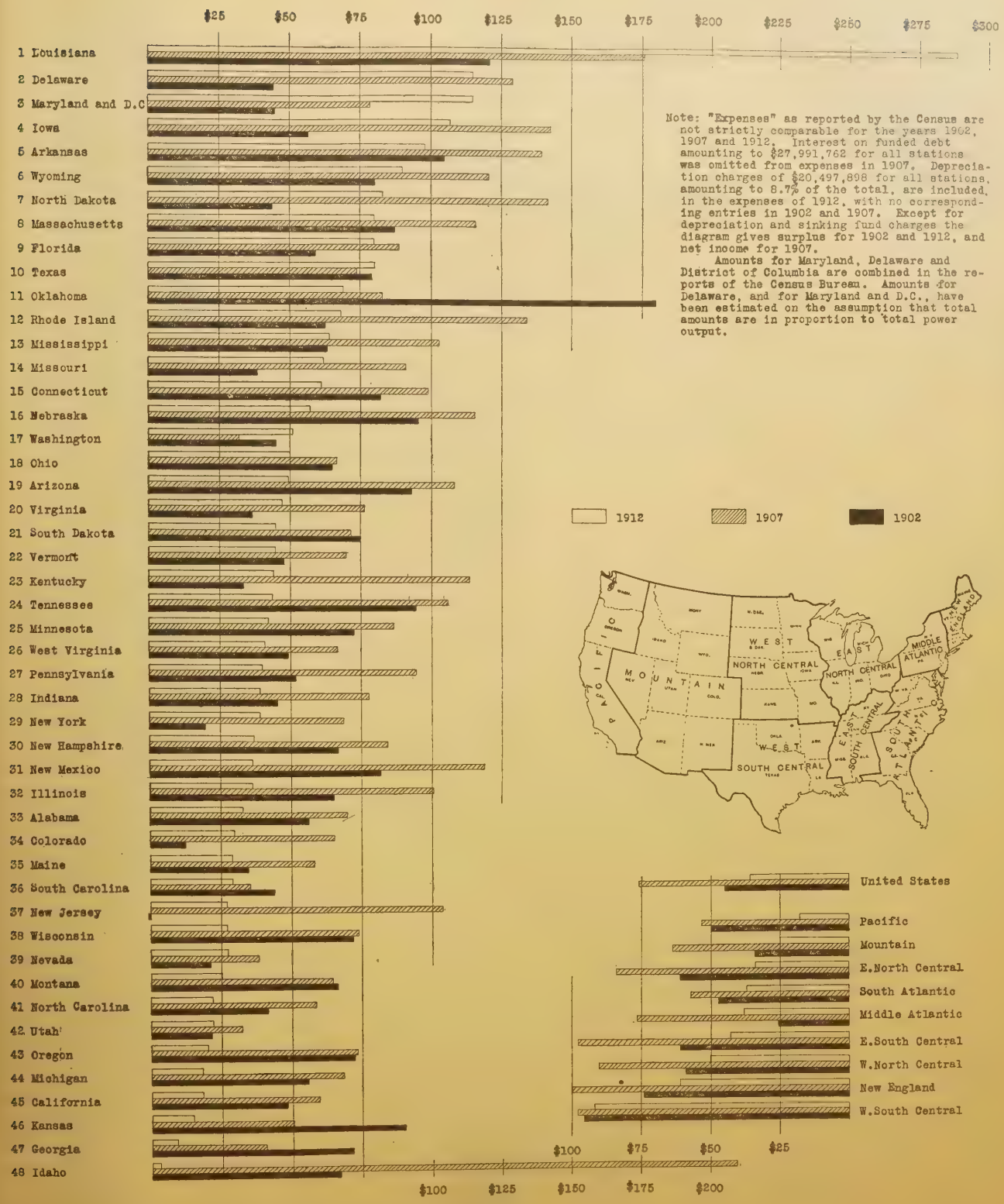
To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

COMMERCIAL CENTRAL STATIONS

Net Income 1907, and Surplus 1912 and 1902, Per Horse-Power Year of Output
By States and by Geographic Divisions
In Order of 1912 Figures

PLATE 80



Note: "Expenses" as reported by the Census are not strictly comparable for the years 1902, 1907 and 1912. Interest on funded debt amounting to $27,991,762 for all stations was omitted from expenses in 1907. Depreciation charges of $20,497,898 for all stations, amounting to 8.7% of the total, are included, in the expenses of 1912, with no corresponding entries in 1902 and 1907. Except for depreciation and sinking fund charges the diagram gives surplus for 1902 and 1912, and net income for 1907.

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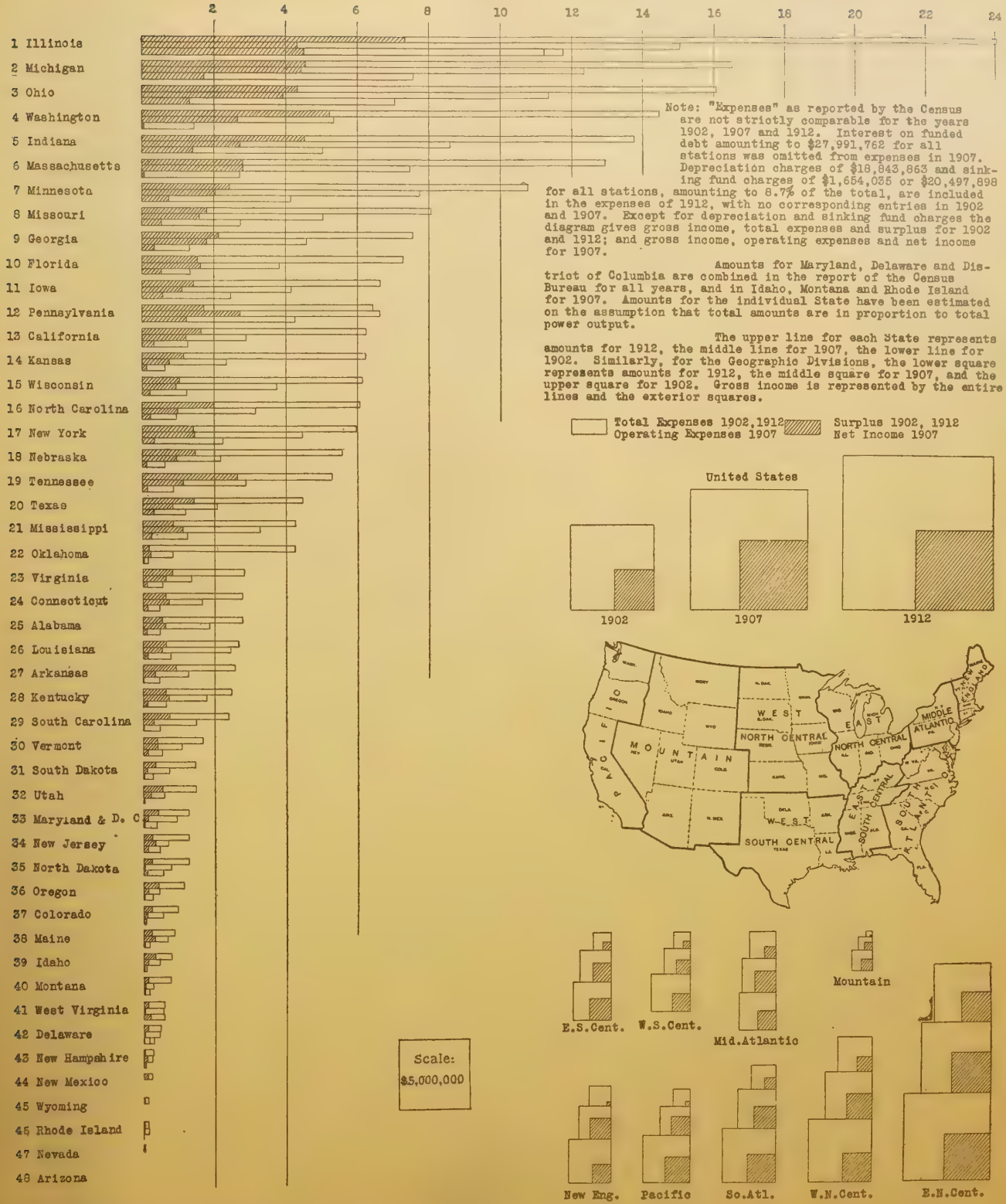
To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

Income, Expenses and Surplus, 1912, 1907 and 1902
By States and by Geographic Divisions
In Hundreds of Thousands of Dollars



Note: "Expenses" as reported by the Census are not strictly comparable for the years 1902, 1907 and 1912. Interest on funded debt amounting to $27,991,762 for all stations was omitted from expenses in 1907. Depreciation charges of $18,843,863 and sinking fund charges of $1,654,035 or $20,497,898 for all stations, amounting to 8.7% of the total, are included in the expenses of 1912, with no corresponding entries in 1902 and 1907. Except for depreciation and sinking fund charges the diagram gives gross income, total expenses and surplus for 1902 and 1912; and gross income, operating expenses and net income for 1907.

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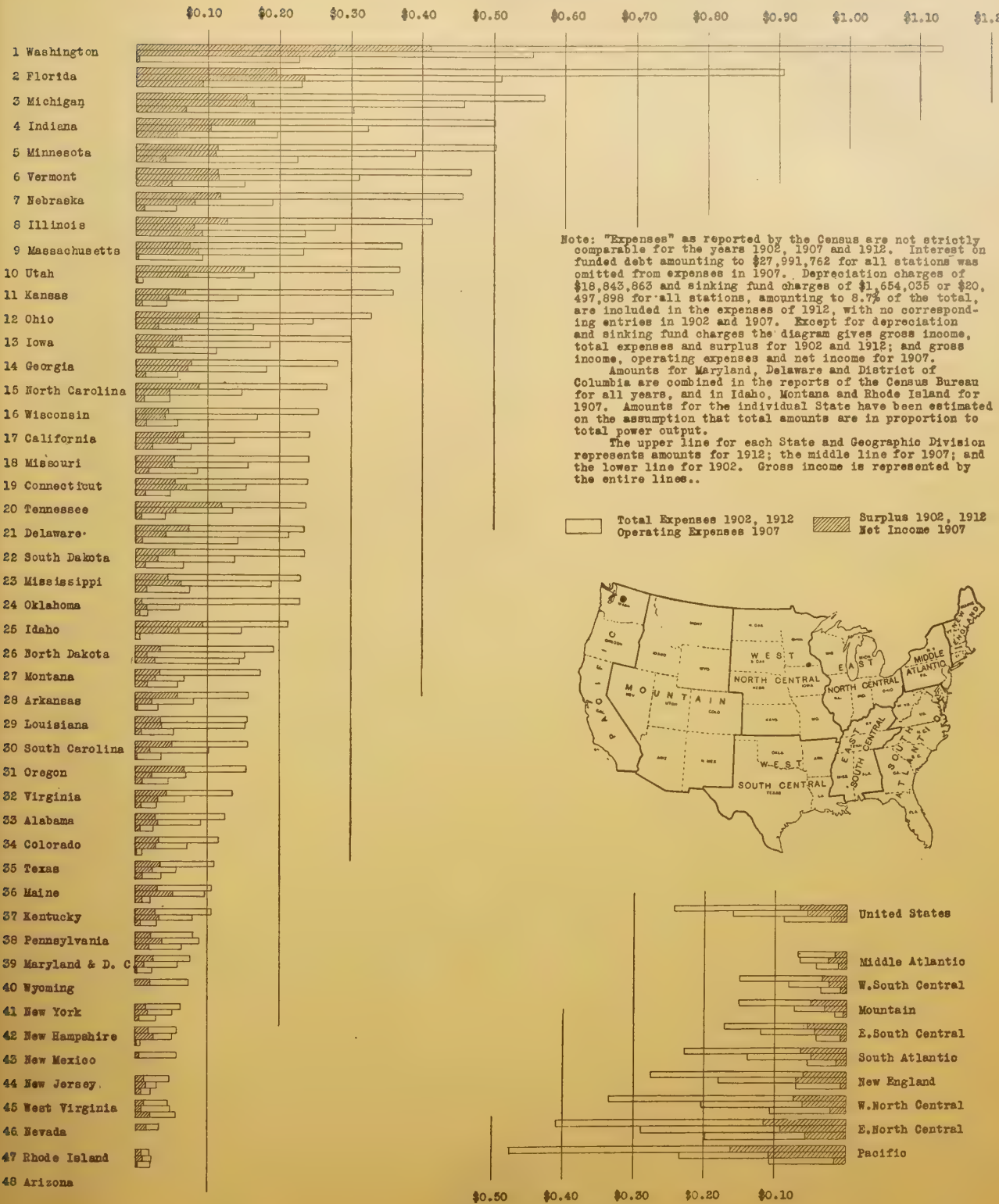
The upper line for each State represents amounts for 1912, the middle line for 1907, the lower line for 1902. Similarly, for the Geographic Divisions, the lower square represents amounts for 1912, the middle square for 1907, and the upper square for 1902. Gross income is represented by the entire lines and the exterior squares.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

MUNICIPAL CENTRAL STATIONS

Income, Expenses and Surplus Per Capita, 1912, 1907 and 1902
By States and by Geographic Divisions
In Order of 1912 Figures



Note: "Expenses" as reported by the Census are not strictly comparable for the years 1902, 1907 and 1912. Interest on funded debt amounting to $27,991,762 for all stations was omitted from expenses in 1907. Depreciation charges of $18,843,863 and sinking fund charges of $1,654,035 or $20,497,898 for all stations, amounting to 8.7% of the total, are included in the expenses of 1912, with no corresponding entries in 1902 and 1907. Except for depreciation and sinking fund charges the diagram gives gross income, total expenses and surplus for 1902 and 1912; and gross income, operating expenses and net income for 1907.

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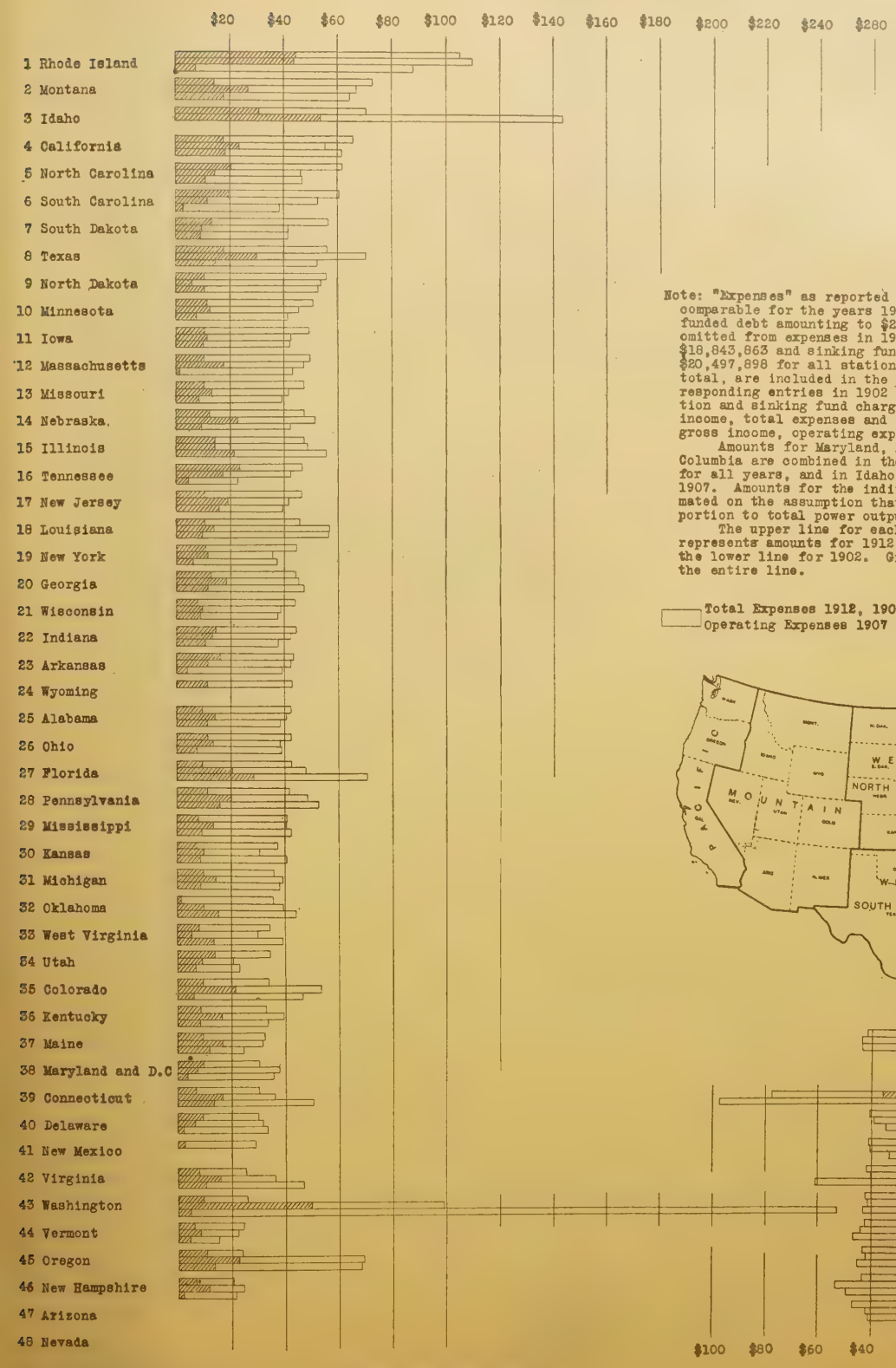
Total Expenses 1902, 1912
Operating Expenses 1907

Surplus 1902, 1912
Net Income 1907

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

Income, Expenses and Surplus, Per Horse-Power of Primary Power, 1912, 1907 and 1902
By States and by Geographic Divisions
In Order of 1912 Figures



Note: "Expenses" as reported by the Census are not strictly comparable for the years 1902, 1907 and 1912. Interest on funded debt amounting to $27,991,762 for all stations was omitted from expenses in 1907. Depreciation charges of $18,843,863 and sinking fund charges of $1,654,035 or $20,497,898 for all stations, amounting to 8.7% of the total, are included in the expenses of 1912, with no corresponding entries in 1902 and 1907. Except for depreciation and sinking fund charges the diagram gives gross income, total expenses and surplus for 1902 and 1912; and gross income, operating expenses and net income for 1907.

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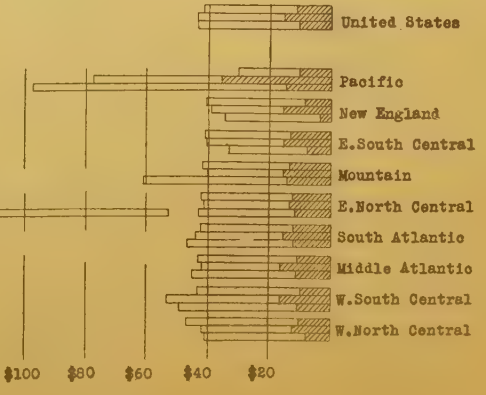
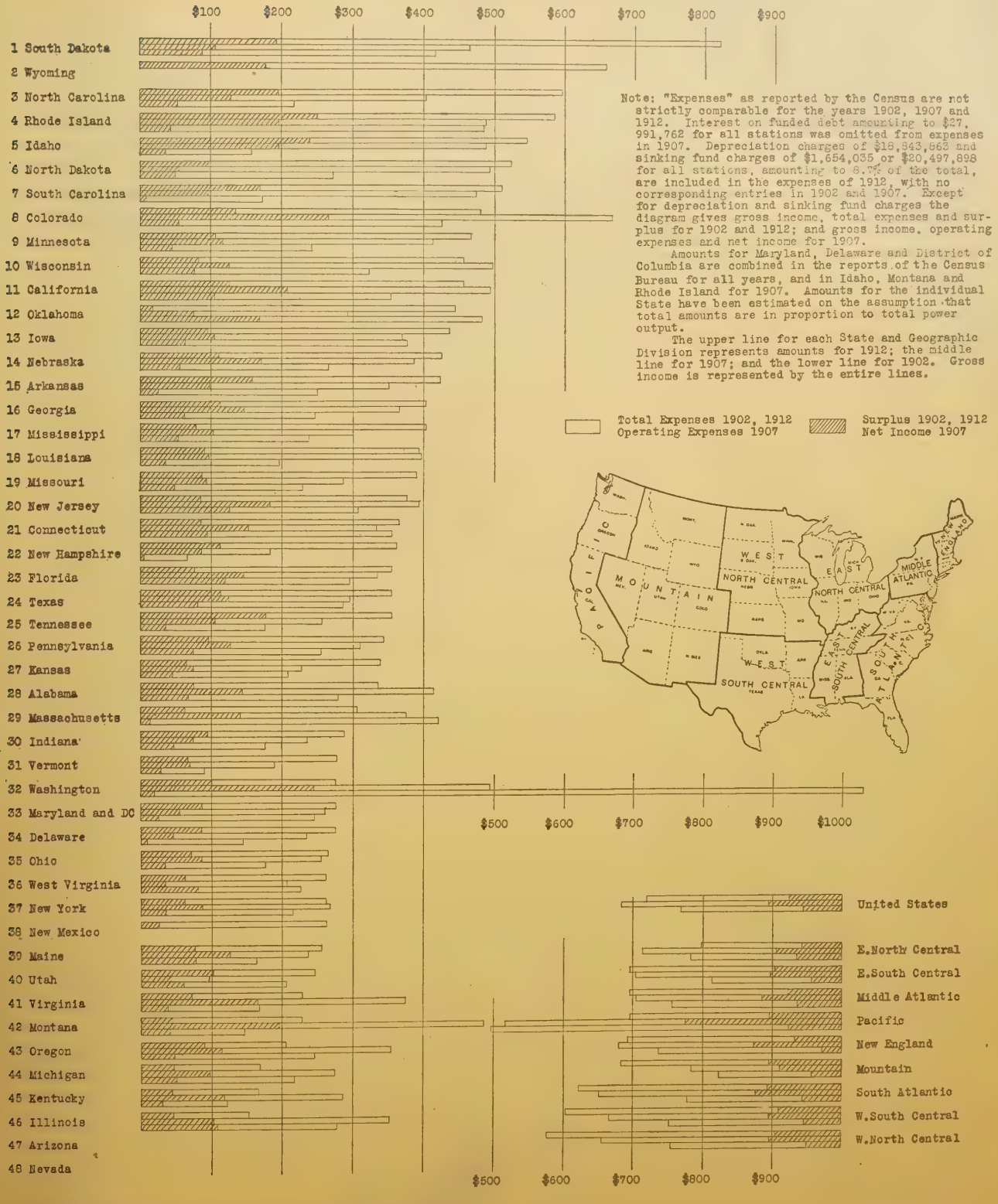
Total Expenses 1912, 1902
Operating Expenses 1907

Surplus 1912, 1902
Net Income 1907



To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

Income, Expenses and Surplus, Per Horse-Power Year of Output, 1912, 1907 and 1902
By States and by Geographic Divisions
In Order of 1912 Figures



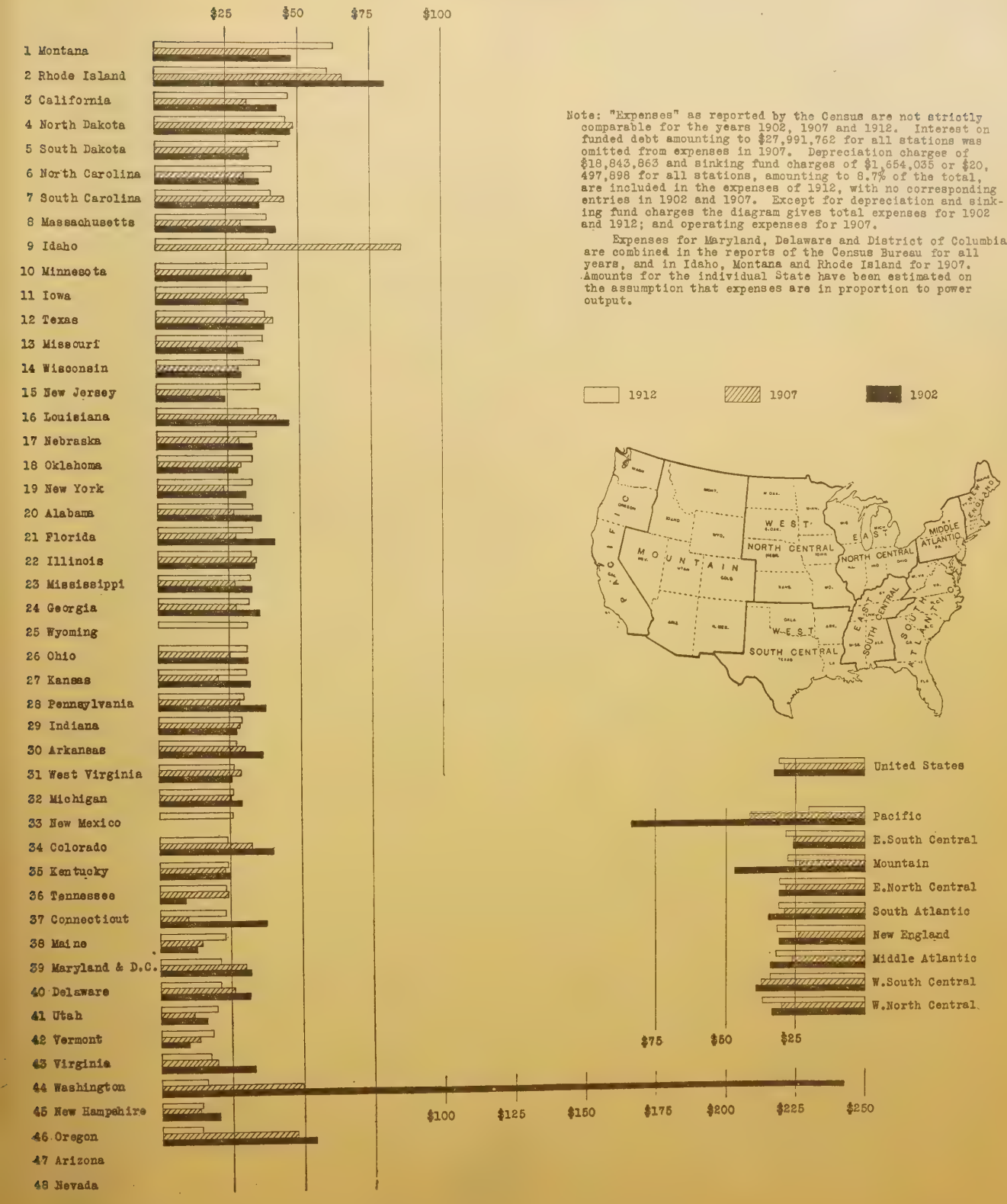
Note: "Expenses" as reported by the Census are not strictly comparable for the years 1902, 1907 and 1912. Interest on funded debt amounting to $27,991,762 for all stations was omitted from expenses in 1907. Depreciation charges of $18,843,662 and sinking fund charges of $1,654,035 or $20,497,898 for all stations, amounting to 8.7% of the total, are included in the expenses of 1912, with no corresponding entries in 1902 and 1907. Except for depreciation and sinking fund charges the diagram gives gross income, total expenses and surplus for 1902 and 1912; and gross income, operating expenses and net income for 1907.

Amounts for Maryland, Delaware and District of Columbia are combined in the reports of the Census Bureau for all years, and in Idaho, Montana and Rhode Island for 1907. Amounts for the individual State have been estimated on the assumption that total amounts are in proportion to total power output.

The upper line for each State and Geographic Division represents amounts for 1912; the middle line for 1907; and the lower line for 1902. Gross income is represented by the entire lines.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

Expenses Per Horse-Power of Primary Power, 1912, 1907 and 1902
By States and by Geographic Divisions
In Order of 1912 Figures

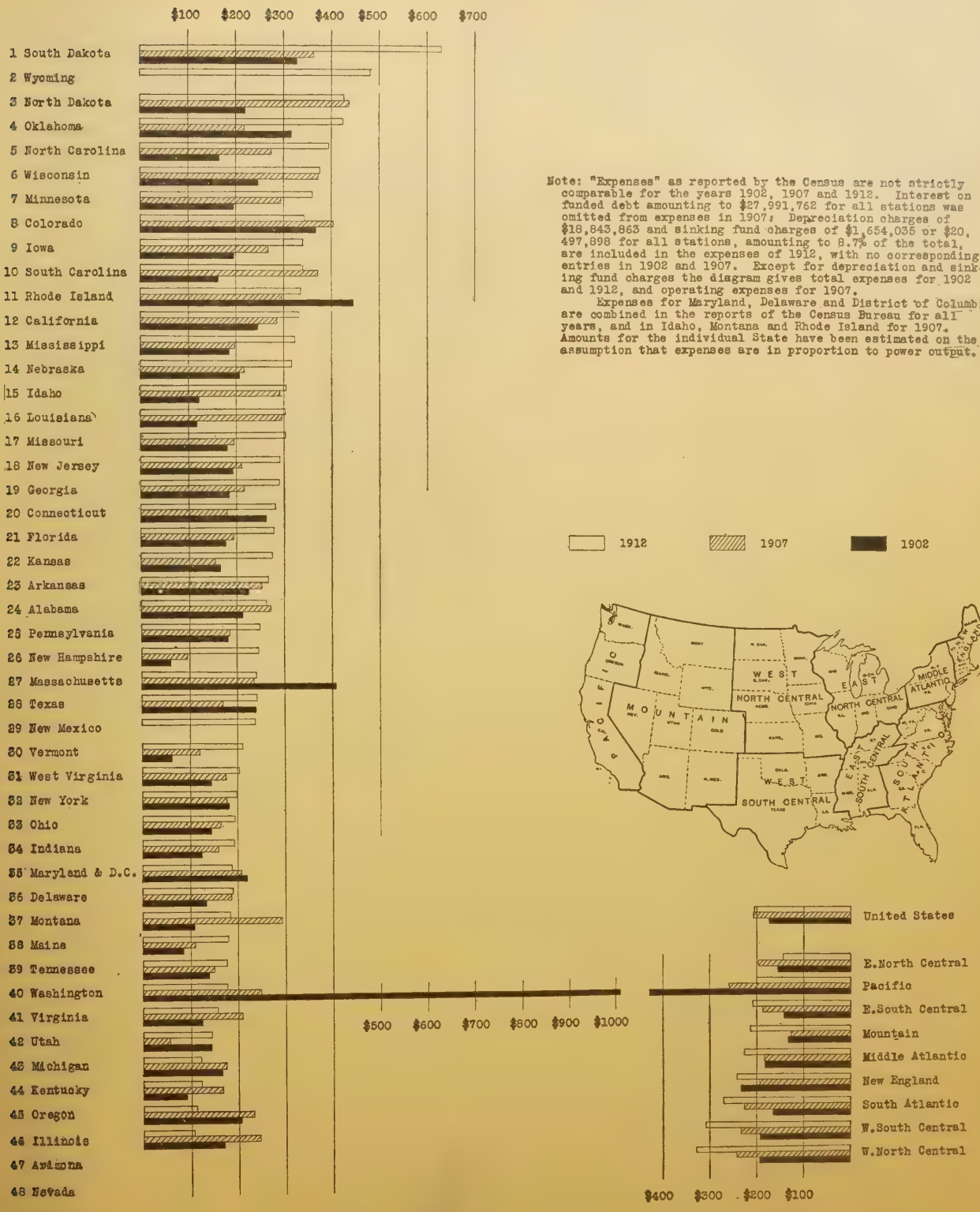


Note: "Expenses" as reported by the Census are not strictly comparable for the years 1902, 1907 and 1912. Interest on funded debt amounting to $27,991,762 for all stations was omitted from expenses in 1907. Depreciation charges of $18,843,863 and sinking fund charges of $1,654,035 or $20,497,898 for all stations, amounting to 8.7% of the total, are included in the expenses of 1912, with no corresponding entries in 1902 and 1907. Except for depreciation and sinking fund charges the diagram gives total expenses for 1902 and 1912; and operating expenses for 1907.

Expenses for Maryland, Delaware and District of Columbia are combined in the reports of the Census Bureau for all years, and in Idaho, Montana and Rhode Island for 1907. Amounts for the individual State have been estimated on the assumption that expenses are in proportion to power output.

To accompany report on Sen. Res. No. 544, 62rd. Cong., 3rd. Sess.

Expenses Per Horse-Power Year of Output, 1912, 1907 and 1902
By States and by Geographic Divisions
In Order of 1912 Figures

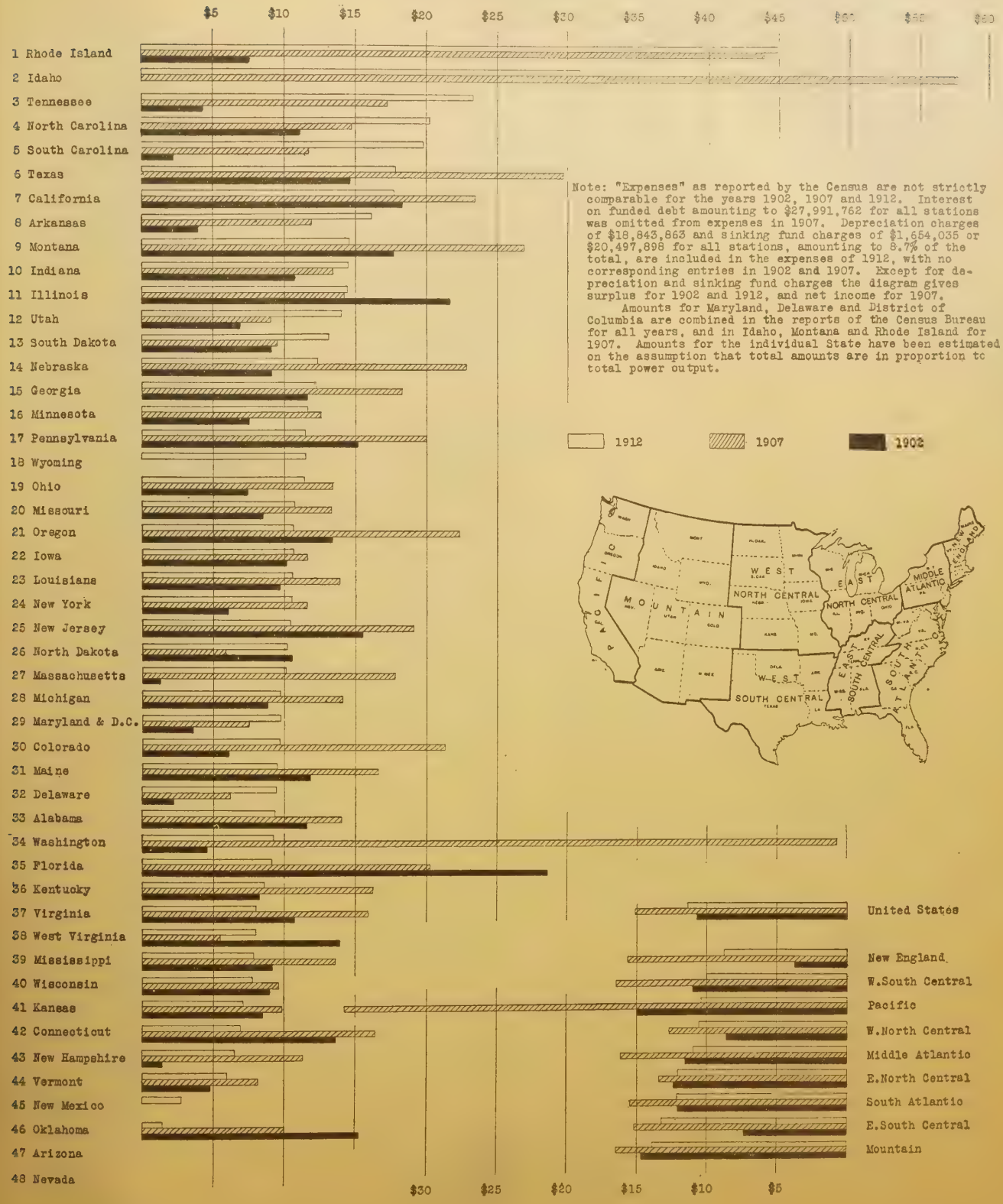


Note: "Expenses" as reported by the Census are not strictly comparable for the years 1902, 1907 and 1912. Interest on funded debt amounting to $27,991,762 for all stations was omitted from expenses in 1907; Depreciation charges of $18,843,863 and sinking fund charges of $1,654,035 or $20,497,898 for all stations, amounting to 8.7% of the total, are included in the expenses of 1912, with no corresponding entries in 1902 and 1907. Except for depreciation and sinking fund charges the diagram gives total expenses for 1902 and 1912, and operating expenses for 1907.

Expenses for Maryland, Delaware and District of Columbia are combined in the reports of the Census Bureau for all years, and in Idaho, Montana and Rhode Island for 1907. Amounts for the individual State have been estimated on the assumption that expenses are in proportion to power output.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

Net Income 1907, and Surplus 1912 and 1902, Per Horse-Power of Primary Power
By States and by Geographic Divisions
In Order of 1912 Figures



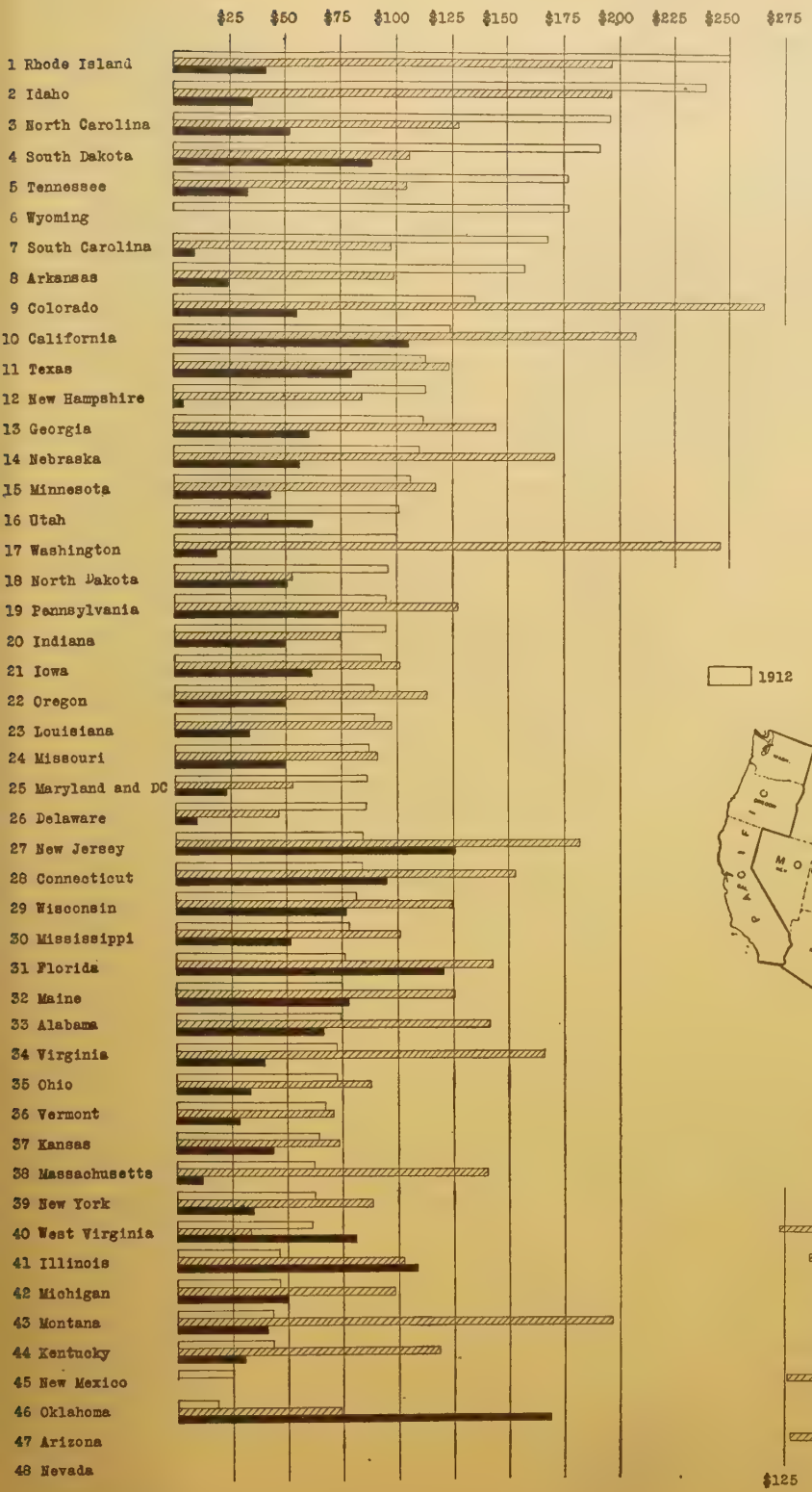
Note: "Expenses" as reported by the Census are not strictly comparable for the years 1902, 1907 and 1912. Interest on funded debt amounting to $27,991,762 for all stations was omitted from expenses in 1907. Depreciation charges of $18,843,863 and sinking fund charges of $1,654,035 or $20,497,898 for all stations, amounting to 8.7% of the total, are included in the expenses of 1912, with no corresponding entries in 1902 and 1907. Except for depreciation and sinking fund charges the diagram gives surplus for 1902 and 1912, and net income for 1907.

Amounts for Maryland, Delaware and District of Columbia are combined in the reports of the Census Bureau for all years, and in Idaho, Montana and Rhode Island for 1907. Amounts for the individual State have been estimated on the assumption that total amounts are in proportion to total power output.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

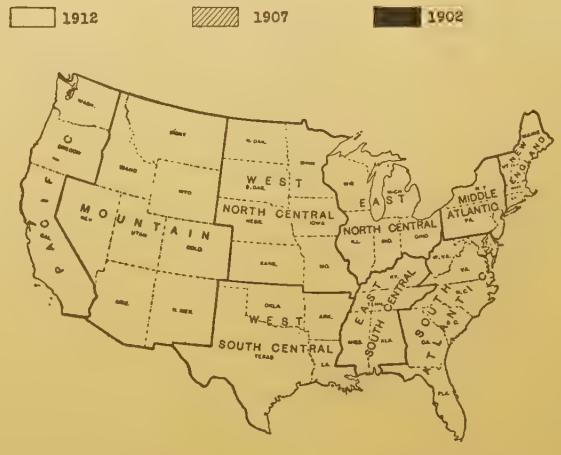
MUNICIPAL CENTRAL STATIONS

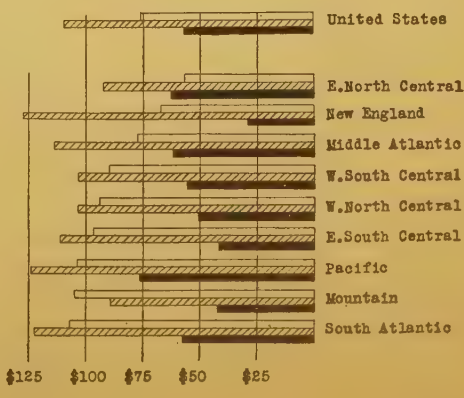
Net Income 1907, and Surplus 1912 and 1902, Per Horse-Power Year of Output
By States and by Geographic Divisions
In Order of 1912 Figures



Note: "Expenses" as reported by the Census are not strictly comparable for the years 1902, 1907 and 1912. Interest on funded debt amounting to $27,991,762 for all stations was omitted from expenses in 1907. Depreciation charges of $18,843,863 and sinking fund charges of $1,654,035 or $20,497,898 for all stations, amounting to 8.7% of the total, are included in the expenses of 1912, with no corresponding entries in 1902 and 1907. Except for depreciation and sinking fund charges the diagram gives surplus for 1902 and 1912, and net income for 1907.

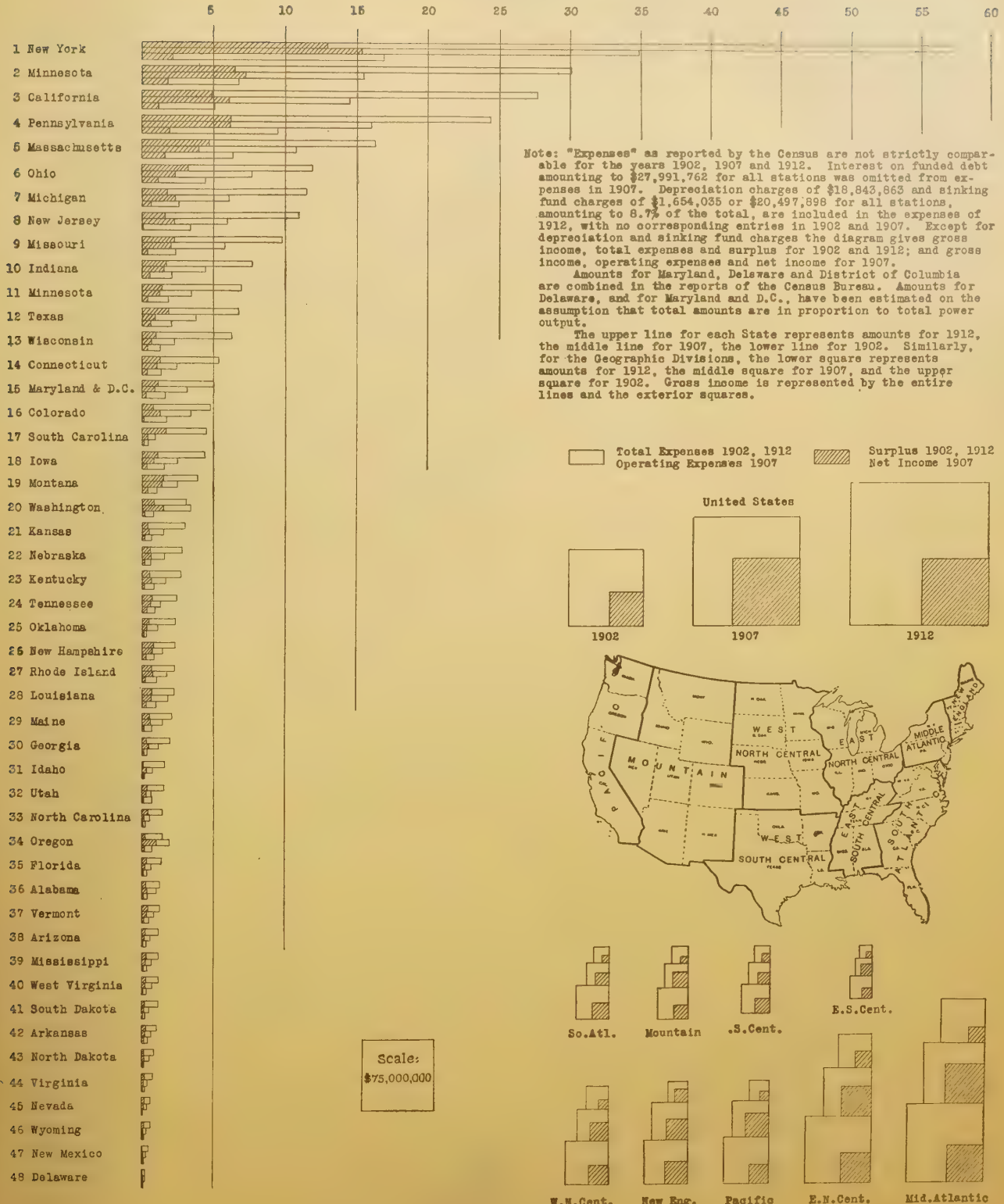
Amounts for Maryland, Delaware and District of Columbia are combined in the reports of the Census Bureau for all years, and in Idaho, Montana and Rhode Island for 1907. Amounts for the individual State have been estimated on the assumption that total amounts are in proportion to total output.





To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

Income, Expenses and Surplus, 1912, 1907 and 1902
--By States and by Geographic Divisions
In Millions of Dollars



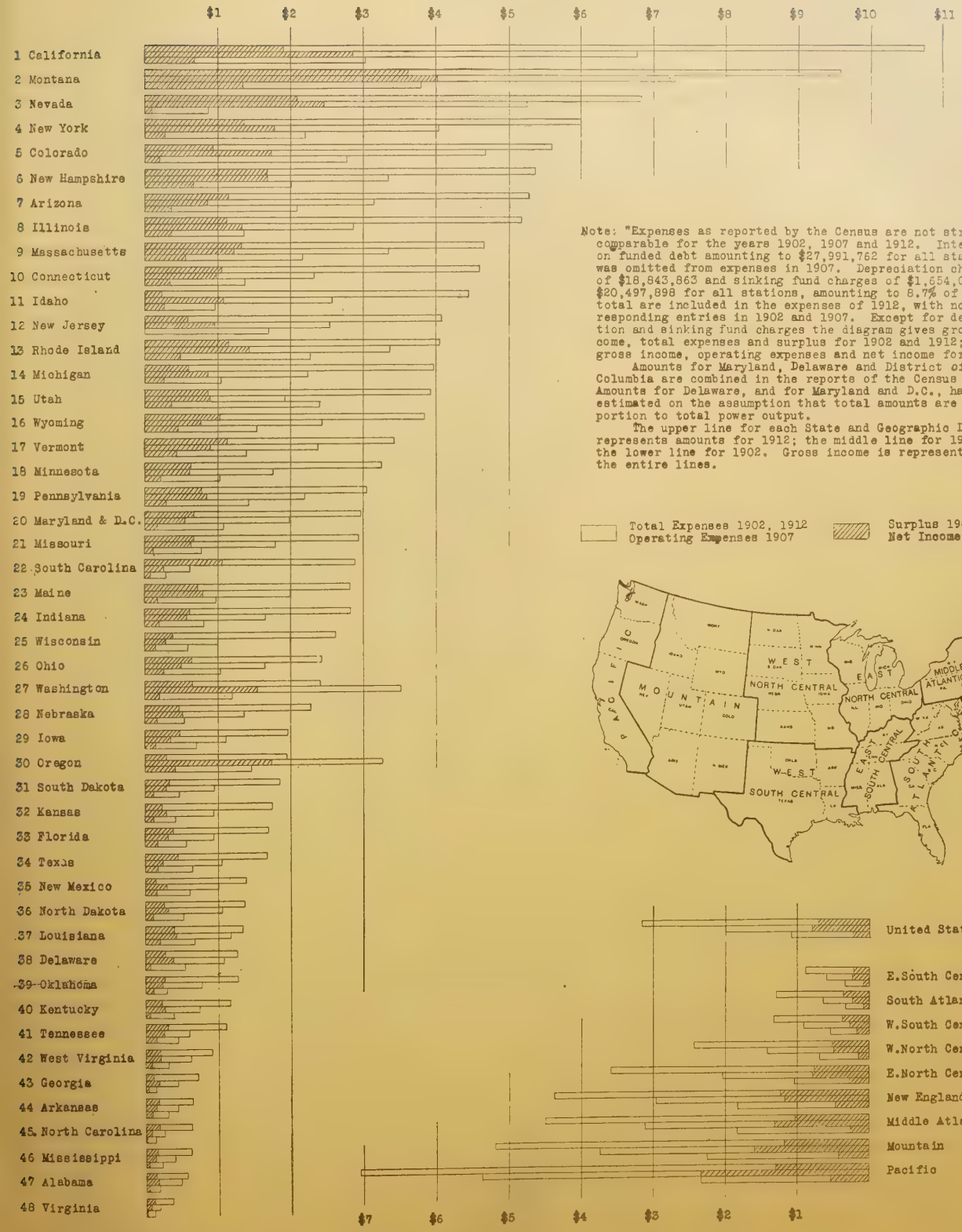
Note: "Expenses" as reported by the Census are not strictly comparable for the years 1902, 1907 and 1912. Interest on funded debt amounting to $27,991,762 for all stations was omitted from expenses in 1907. Depreciation charges of $18,843,863 and sinking fund charges of $1,654,035 or $20,497,898 for all stations, amounting to 8.7% of the total, are included in the expenses of 1912, with no corresponding entries in 1902 and 1907. Except for depreciation and sinking fund charges the diagram gives gross income, total expenses and surplus for 1902 and 1912; and gross income, operating expenses and net income for 1907.

Amounts for Maryland, Delaware and District of Columbia are combined in the reports of the Census Bureau. Amounts for Delaware, and for Maryland and D.C., have been estimated on the assumption that total amounts are in proportion to total power output.

The upper line for each State represents amounts for 1912, the middle line for 1907, the lower line for 1902. Similarly, for the Geographic Divisions, the lower square represents amounts for 1912, the middle square for 1907, and the upper square for 1902. Gross income is represented by the entire lines and the exterior squares.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess

Income, Expenses and Surplus, Per Capita, 1912, 1907 and 1902
By States and by Geographic Divisions
In Order of 1912 Figures



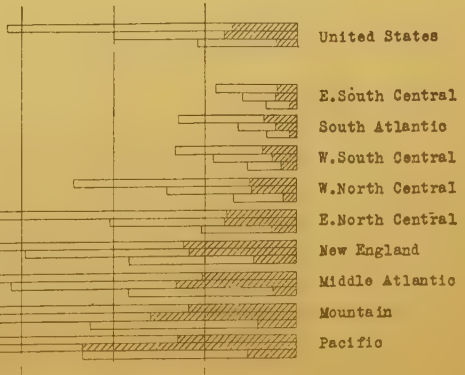
Note: "Expenses as reported by the Census are not strictly comparable for the years 1902, 1907 and 1912. Interest on funded debt amounting to $27,991,762 for all stations was omitted from expenses in 1907. Depreciation charges of $18,843,863 and sinking fund charges of $1,654,035 or $20,497,898 for all stations, amounting to 8.7% of the total are included in the expenses of 1912, with no corresponding entries in 1902 and 1907. Except for depreciation and sinking fund charges the diagram gives gross income, total expenses and surplus for 1902 and 1912; and gross income, operating expenses and net income for 1907.

Amounts for Maryland, Delaware and District of Columbia are combined in the reports of the Census Bureau. Amounts for Delaware, and for Maryland and D.C., have been estimated on the assumption that total amounts are in proportion to total power output.

The upper line for each State and Geographic Division represents amounts for 1912; the middle line for 1907; and the lower line for 1902. Gross income is represented by the entire lines.

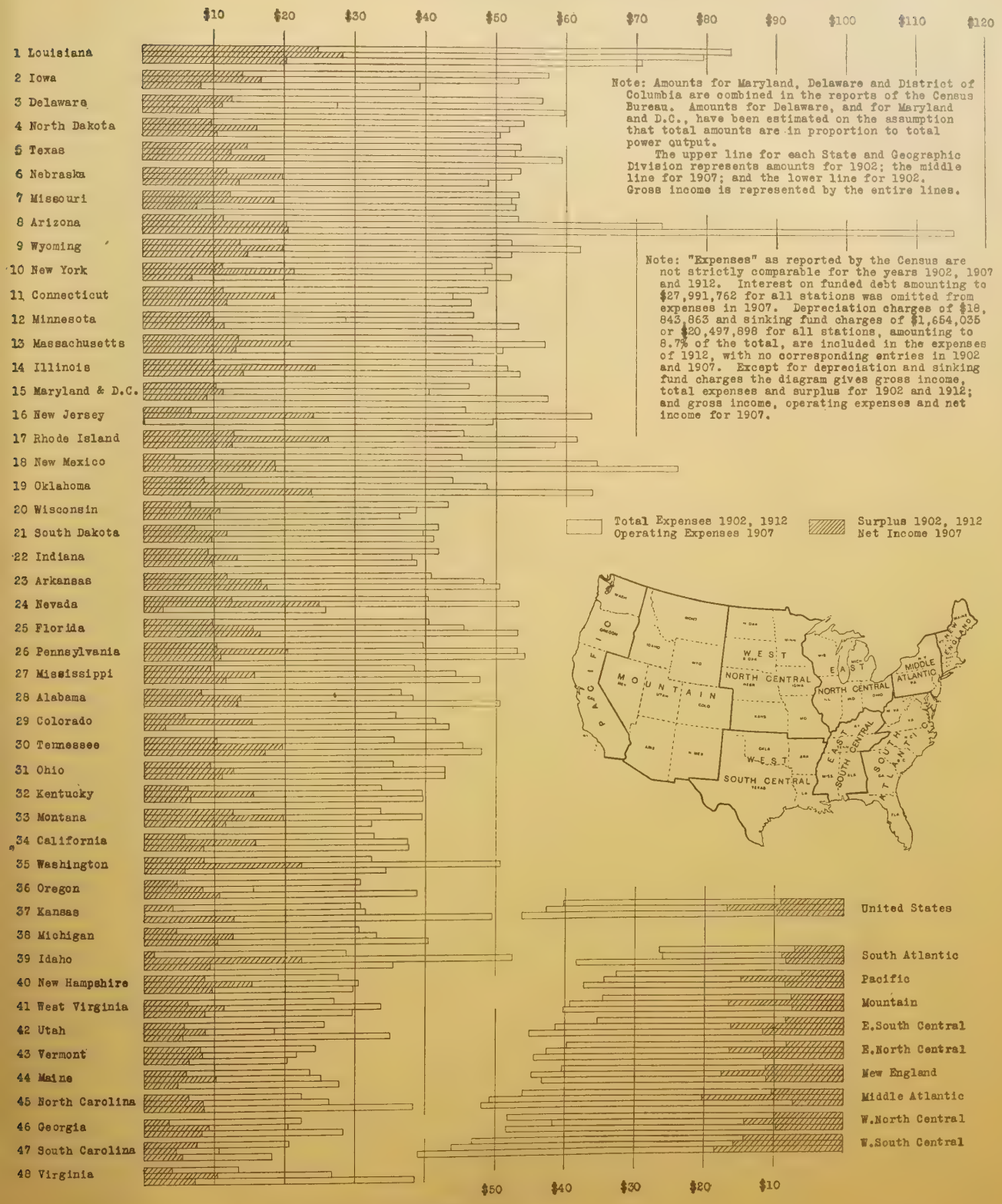
Total Expenses 1902, 1912
Operating Expenses 1907

Surplus 1902, 1912
Net Income 1907



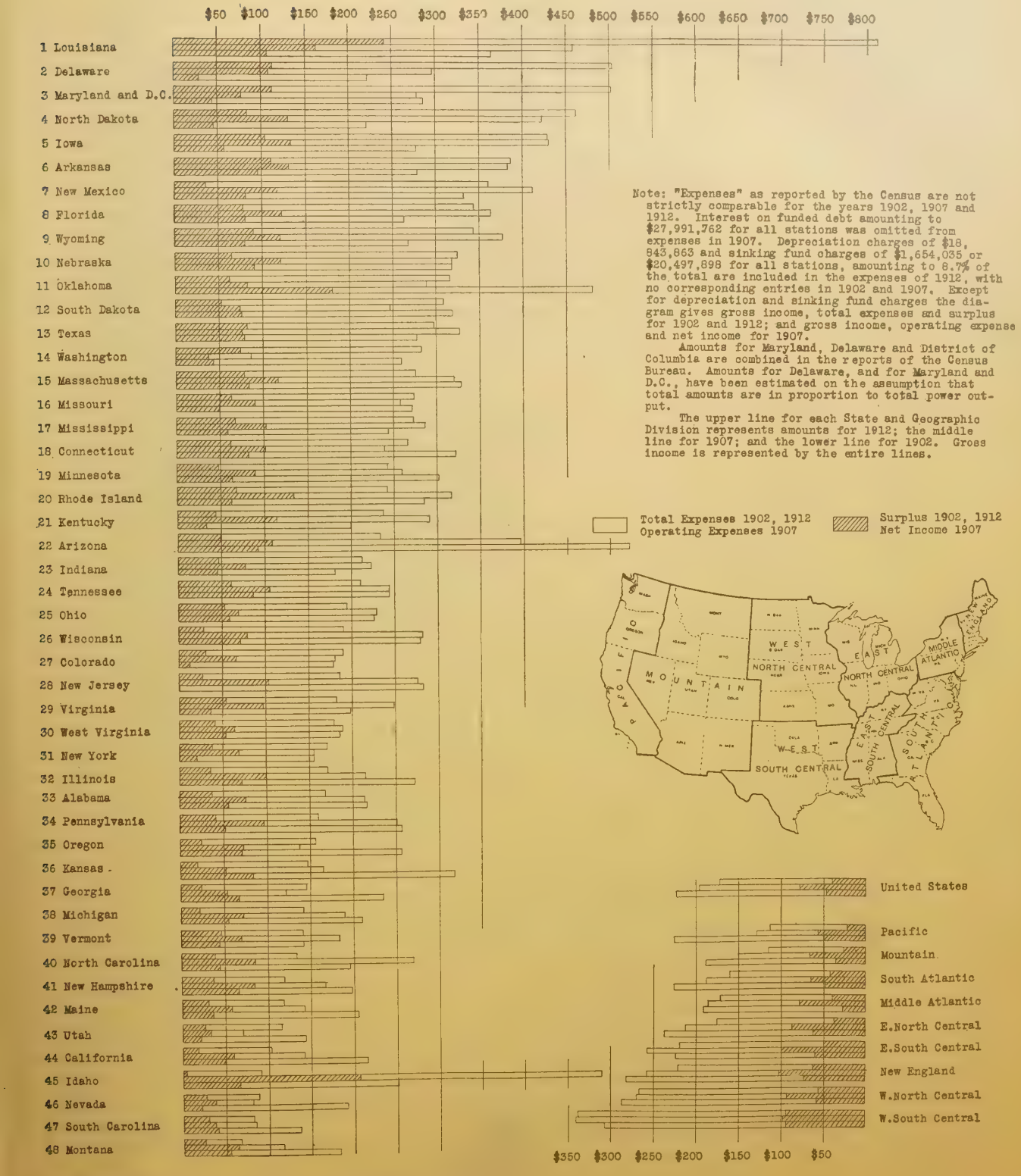
To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

Income, Expenses and Surplus, Per Horse-Power of Primary Power, 1912, 1907 and 1902
By States and by Geographic Divisions
In Order of 1912 Figures



To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

Income, Expenses and Surplus, Per Horse-Power Year of Output, 1912, 1907 and 1902
By States and by Geographic Divisions
In Order of 1912 Figures



Note: "Expenses" as reported by the Census are not strictly comparable for the years 1902, 1907 and 1912. Interest on funded debt amounting to $27,991,762 for all stations was omitted from expenses in 1907. Depreciation charges of $18,843,863 and sinking fund charges of $1,654,035 or $20,497,898 for all stations, amounting to 8.7% of the total are included in the expenses of 1912, with no corresponding entries in 1902 and 1907. Except for depreciation and sinking fund charges the diagram gives gross income, total expenses and surplus for 1902 and 1912; and gross income, operating expense and net income for 1907.

Amounts for Maryland, Delaware and District of Columbia are combined in the reports of the Census Bureau. Amounts for Delaware, and for Maryland and D.C., have been estimated on the assumption that total amounts are in proportion to total power output.

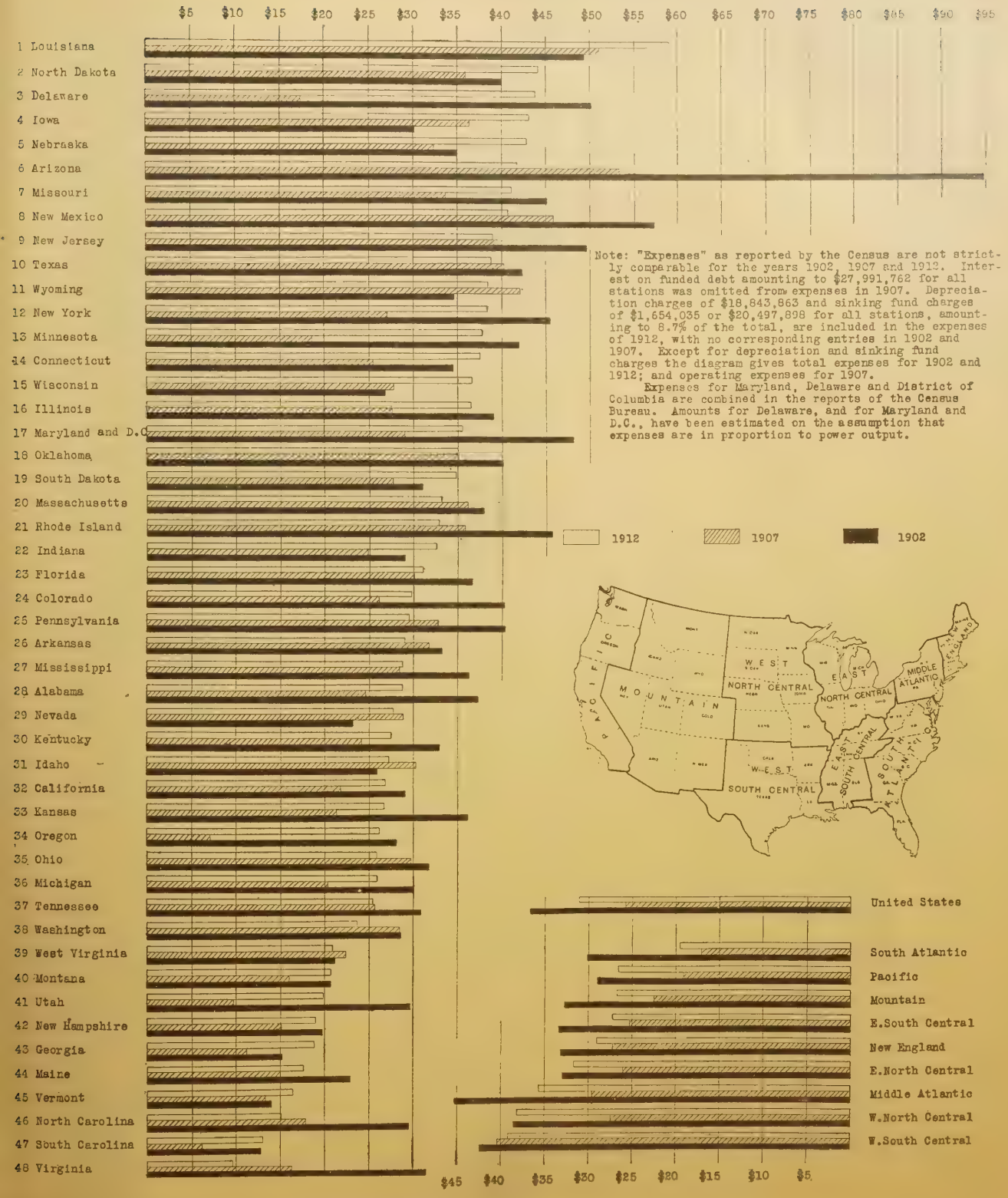
The upper line for each State and Geographic Division represents amounts for 1912; the middle line for 1907; and the lower line for 1902. Gross income is represented by the entire lines.

Total Expenses 1902, 1912
Operating Expenses 1907

Surplus 1902, 1912
Net Income 1907

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

Expenses, Per Horse-Power of Primary Power, 1912, 1907 and 1902
By States and by Geographic Divisions
In Order of 1912 Figures



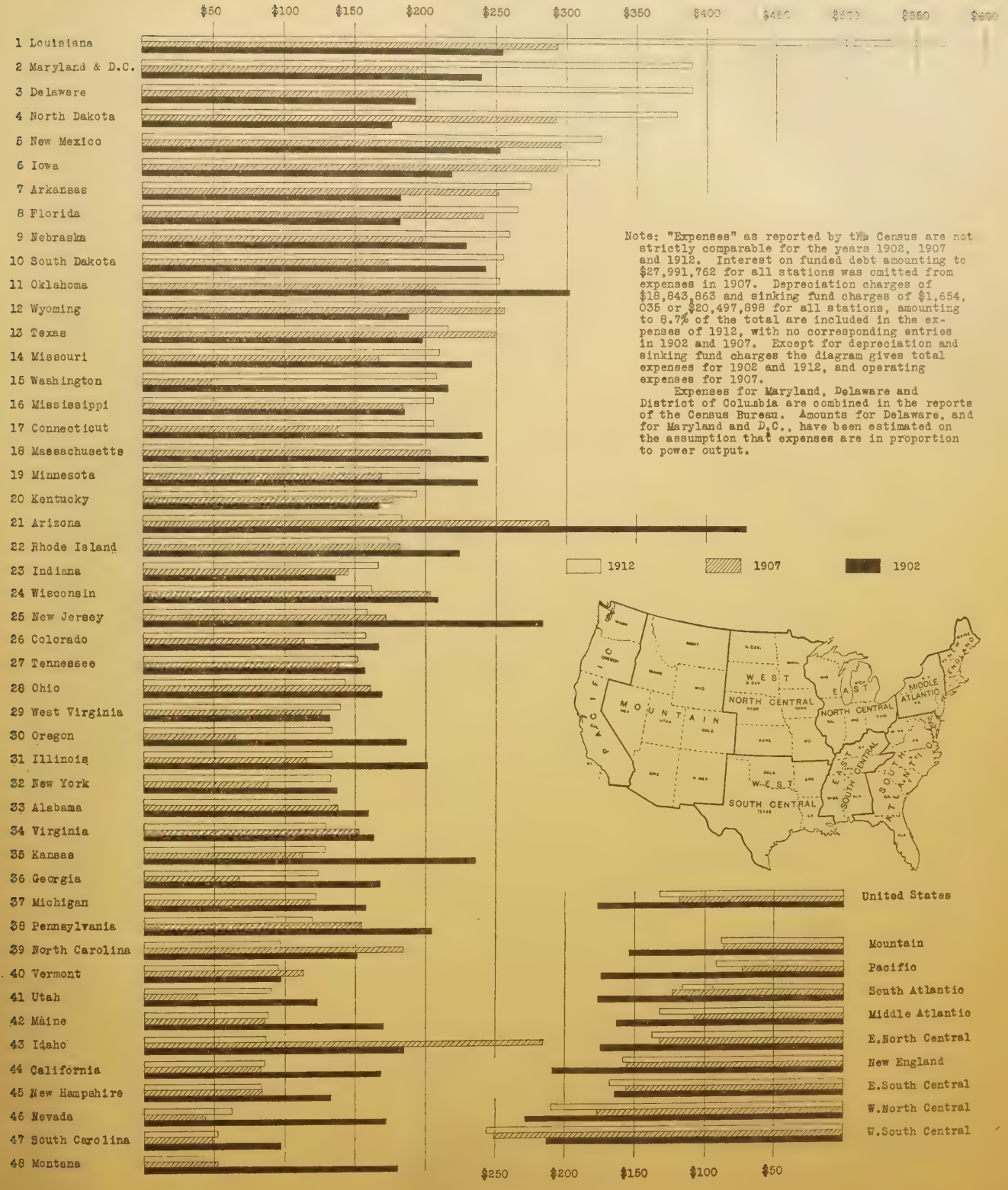
Note: "Expenses" as reported by the Census are not strictly comparable for the years 1902, 1907 and 1912. Interest on funded debt amounting to $27,991,762 for all stations was omitted from expenses in 1907. Depreciation charges of $18,843,863 and sinking fund charges of $1,654,035 or $20,497,898 for all stations, amounting to 8.7% of the total, are included in the expenses of 1912, with no corresponding entries in 1902 and 1907. Except for depreciation and sinking fund charges the diagram gives total expenses for 1902 and 1912; and operating expenses for 1907.

Expenses for Maryland, Delaware and District of Columbia are combined in the reports of the Census Bureau. Amounts for Delaware, and for Maryland and D.C., have been estimated on the assumption that expenses are in proportion to power output.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

COMMERCIAL AND MUNICIPAL CENTRAL STATIONS

Expenses Per Horse-Power Year of Output, 1912, 1907 and 1902
By States and by Geographic Divisions
In Order of 1912 Figures



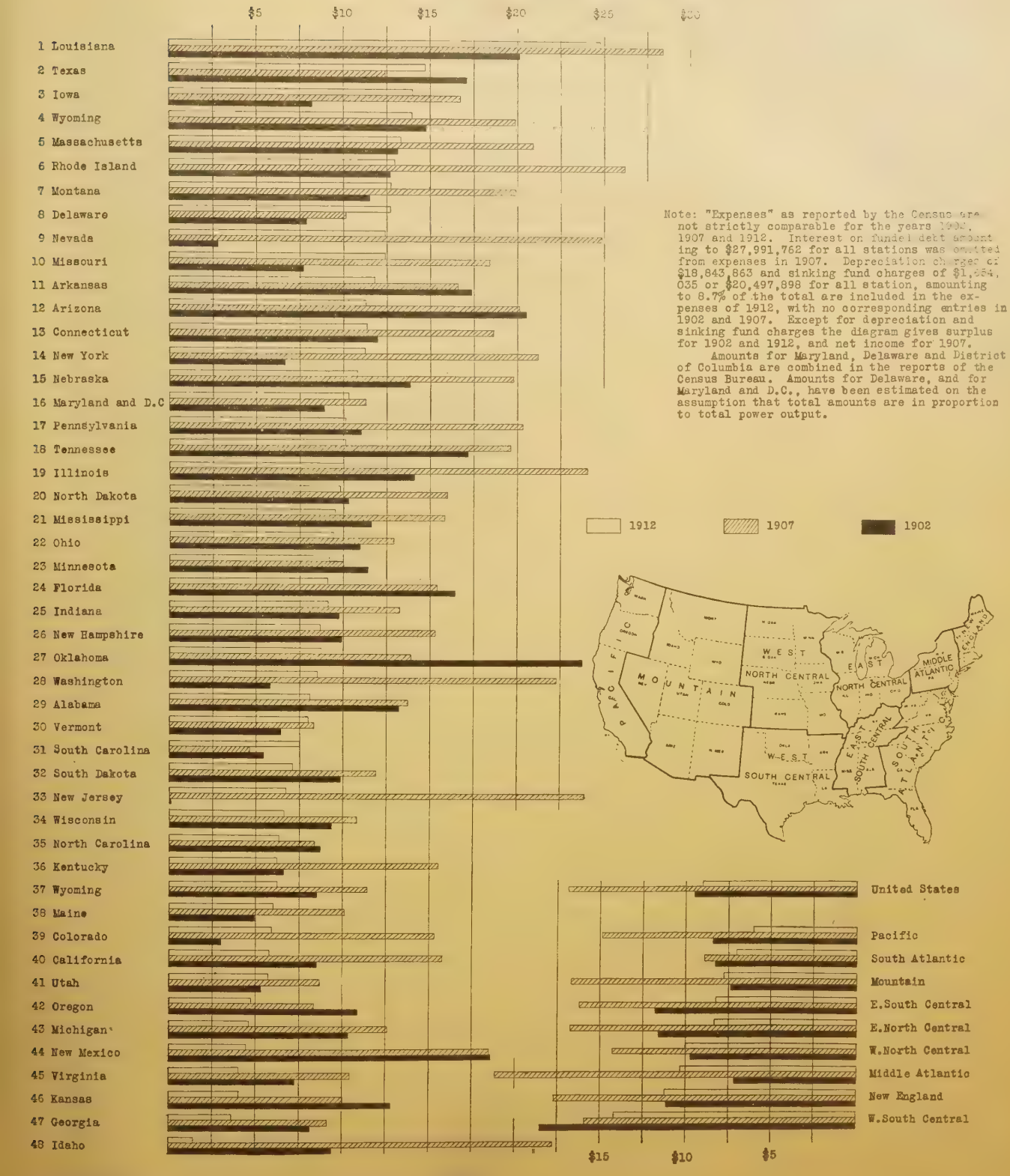
Note: "Expenses" as reported by the Census are not strictly comparable for the years 1902, 1907 and 1912. Interest on funded debt amounting to $27,991,762 for all stations was omitted from expenses in 1907. Depreciation charges of $18,843,863 and sinking fund charges of $1,654,035 or $20,497,898 for all stations, amounting to 8.7% of the total are included in the expenses of 1912, with no corresponding entries in 1902 and 1907. Except for depreciation and sinking fund charges the diagram gives total expenses for 1902 and 1912, and operating expenses for 1907.

Expenses for Maryland, Delaware and District of Columbia are combined in the reports of the Census Bureau. Amounts for Delaware, and for Maryland and D.C., have been estimated on the assumption that expenses are in proportion to power output.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

COMMERCIAL AND MUNICIPAL CENTRAL STATIONS

Net Income 1907, and Surplus 1912 and 1902, Per Horse-Power of Primary Power.
By States and by Geographic Divisions
In Order of 1912 Figures



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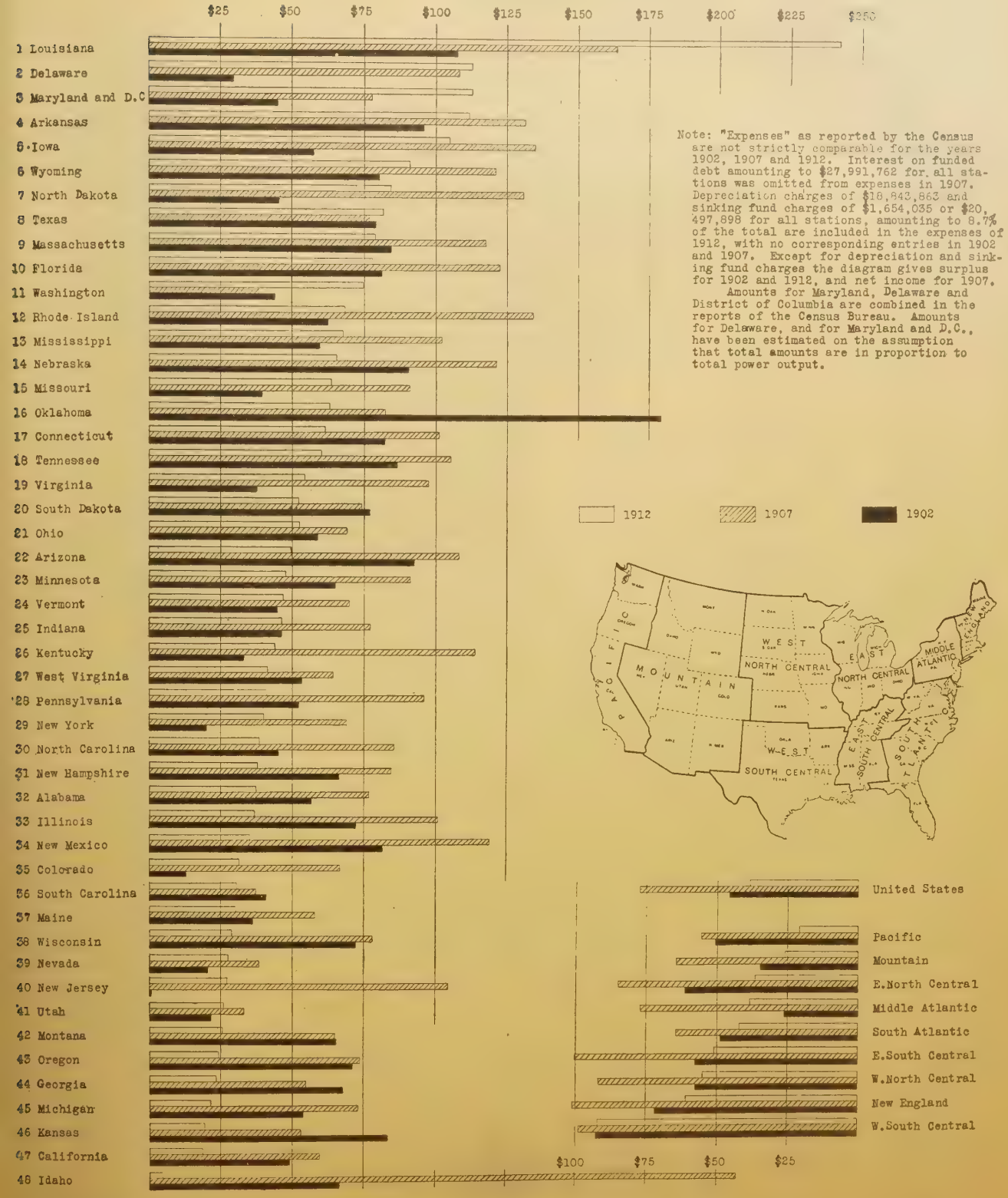
To accompany report on Sen. Res. No. 544, 63rd. Cong. 3rd. Sess.

COMMERCIAL AND MUNICIPAL CENTRAL STATIONS

Net Income 1907, and Surplus 1912 and 1902, Per Horse-Power Year of Output
By States and by Geographic Divisions
In Order of 1912 Figures



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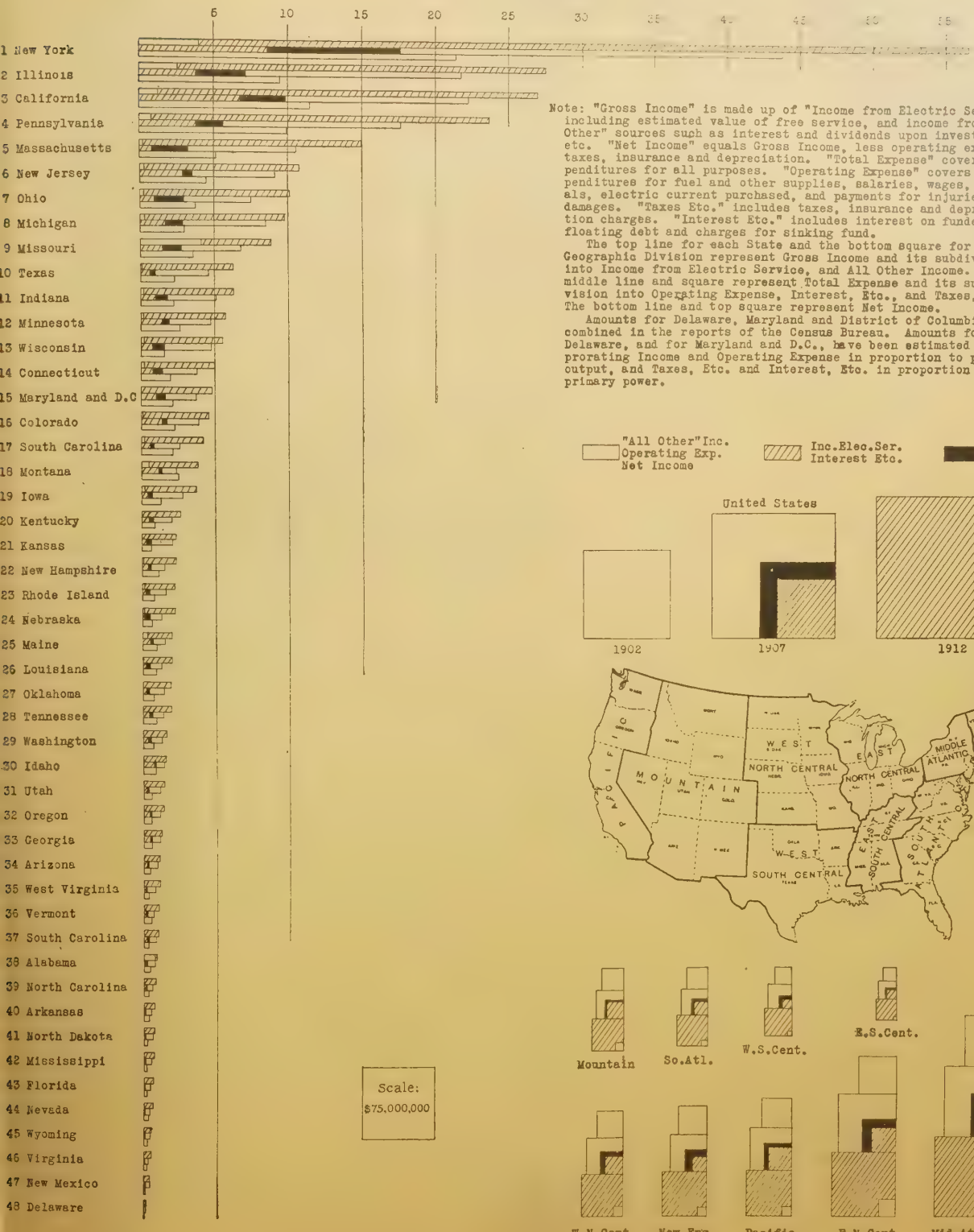
Amounts for Maryland, Delaware and District of Columbia are combined in the reports of the Census Bureau. Amounts for Delaware, and for Maryland and D.C., have been estimated on the assumption that total amounts are in proportion to total power output.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

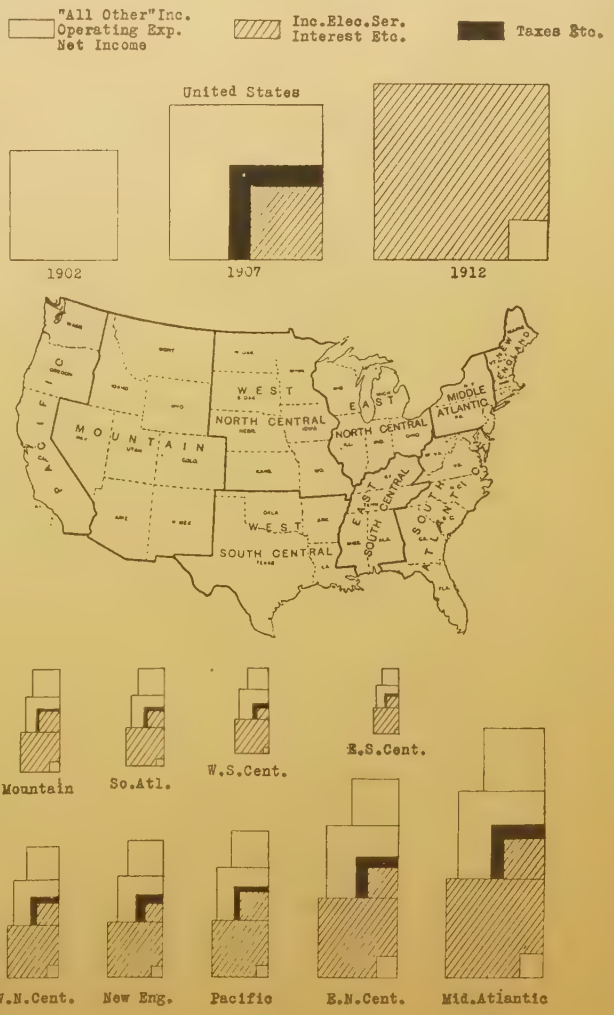
Gross and Net Income, Income from Electric Service and from All Other Sources,
Total and Operating Expenses, Interest and Sinking Fund Charges, Taxes, Insurance and Depreciation 1912
By States and by Geographic Divisions
In Millions of Dollars



Note: "Gross Income" is made up of "Income from Electric Service", including estimated value of free service, and income from "All Other" sources such as interest and dividends upon investments, etc. "Net Income" equals Gross Income, less operating expenses, taxes, insurance and depreciation. "Total Expense" covers expenditures for all purposes. "Operating Expense" covers expenditures for fuel and other supplies, salaries, wages, rentals, electric current purchased, and payments for injuries and damages. "Taxes Etc." includes taxes, insurance and depreciation charges. "Interest Etc." includes interest on funded and floating debt and charges for sinking fund.

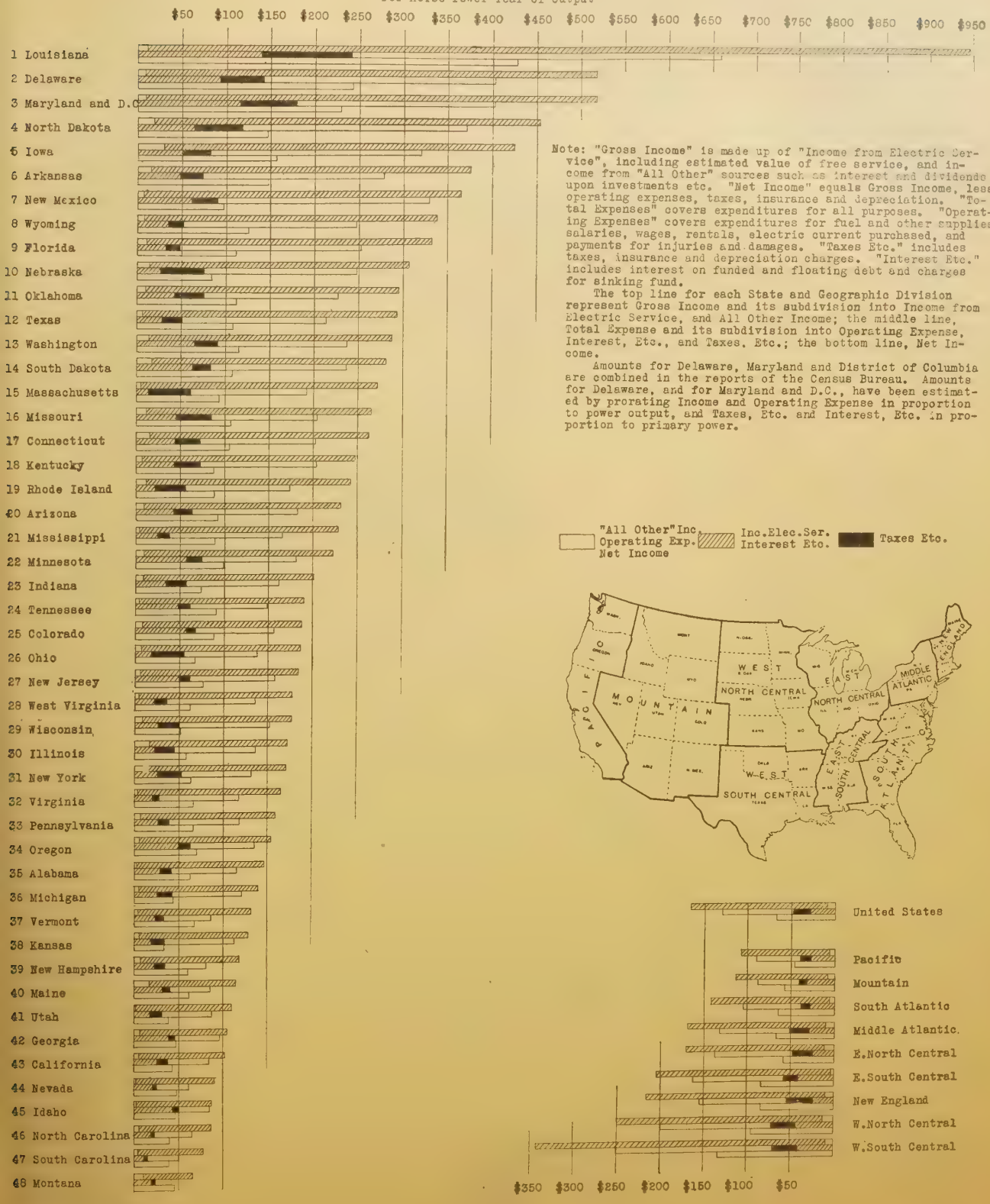
The top line for each State and the bottom square for each Geographic Division represent Gross Income and its subdivision into Income from Electric Service, and All Other Income. The middle line and square represent Total Expense and its subdivision into Operating Expense, Interest, Etc., and Taxes, Etc. The bottom line and top square represent Net Income.

Amounts for Delaware, Maryland and District of Columbia are combined in the reports of the Census Bureau. Amounts for Delaware, and for Maryland and D.C., have been estimated by prorating Income and Operating Expense in proportion to power output, and Taxes, Etc. and Interest, Etc. in proportion to primary power.



To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

Gross and Net Income, Income from Electric Service and from All Other Sources,
Total and Operating Expenses, Interest and Sinking Fund Charges, Taxes, Insurance and Depreciation 1912
By States and by Geographic Divisions
Per Horse-Power Year of Output



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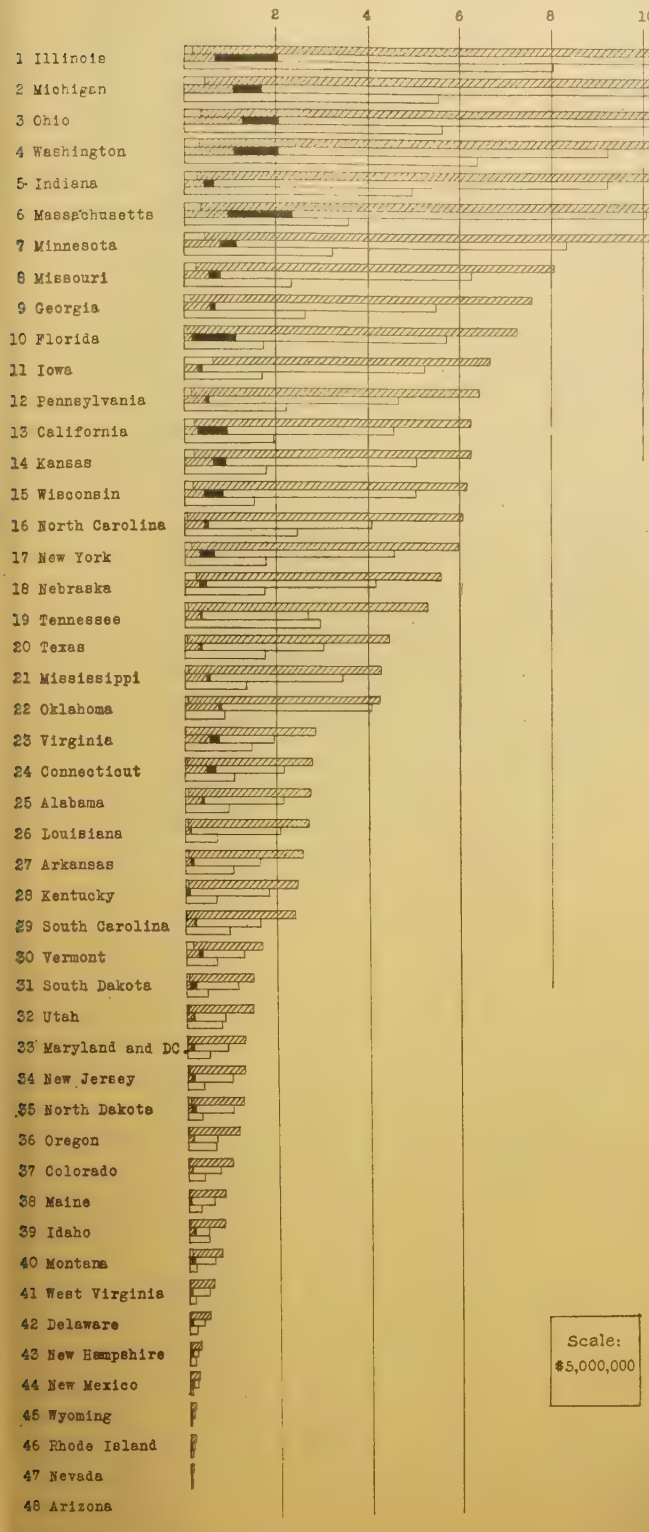
The top line for each State and Geographic Division represent Gross Income and its subdivision into Income from Electric Service, and All Other Income; the middle line, Total Expense and its subdivision into Operating Expense, Interest, Etc., and Taxes, Etc.; the bottom line, Net Income.

Amounts for Delaware, Maryland and District of Columbia are combined in the reports of the Census Bureau. Amounts for Delaware, and for Maryland and D.C., have been estimated by prorating Income and Operating Expense in proportion to power output, and Taxes, Etc. and Interest, Etc. in proportion to primary power.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

MUNICIPAL CENTRAL STATIONS

Gross and Net Income, Income from Electric Service and from All Other Sources,
Total and Operating Expenses, Interest and Sinking Fund Charges, Taxes, Insurance and Depreciation 1912
By States and by Geographic Divisions
In Hundreds of Thousands of Dollars



Note: "Gross Income" is made up of Income from Electric Service", including estimated value of free service, and income from "All Other" sources such as interest and dividends upon investments, etc. "Net Income" equals Gross Income, less operating expenses, taxes, insurance and depreciation. "Total Expense" covers expenditures for all purposes. "Operating Expense" covers expenditures for fuel and other supplies, salaries, wages, rentals, electric current purchased, and payments for injuries and damages. "Taxes Etc." includes taxes, insurance and depreciation charges. "Interest Etc." includes interest on funded and floating debt and charges for sinking fund.

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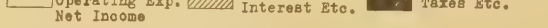
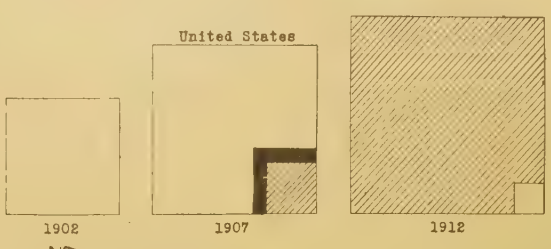
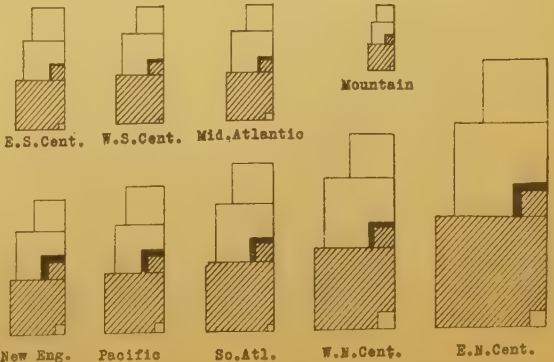
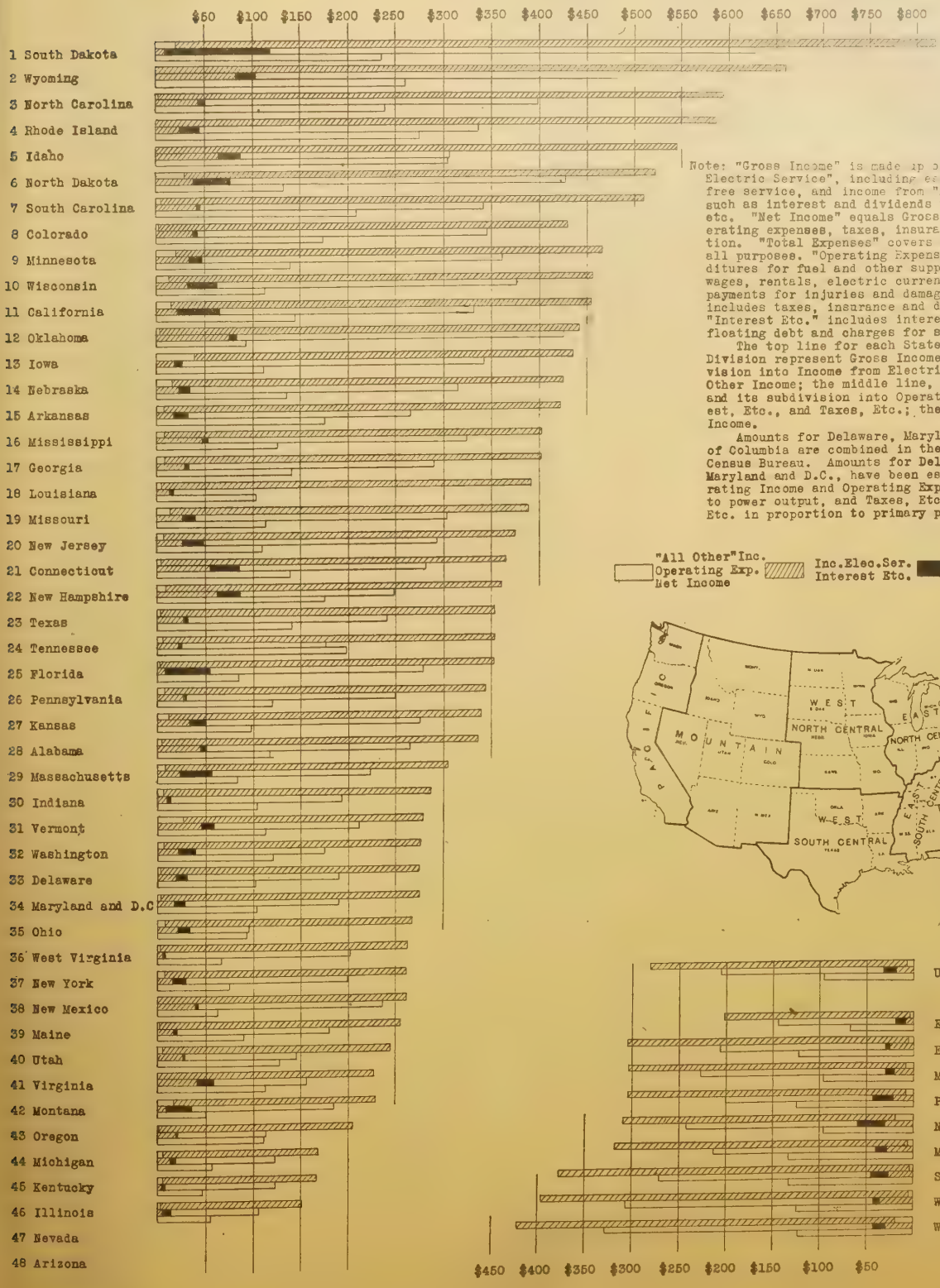






To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

Gross and Net Income, Income from Electric Service and from All Other Sources,
Total and Operating Expenses, Interest and Sinking Fund Charges, Taxes, Insurance and Depreciation 1912
By States and by Geographic Divisions
Per Horse-Power Year of Output



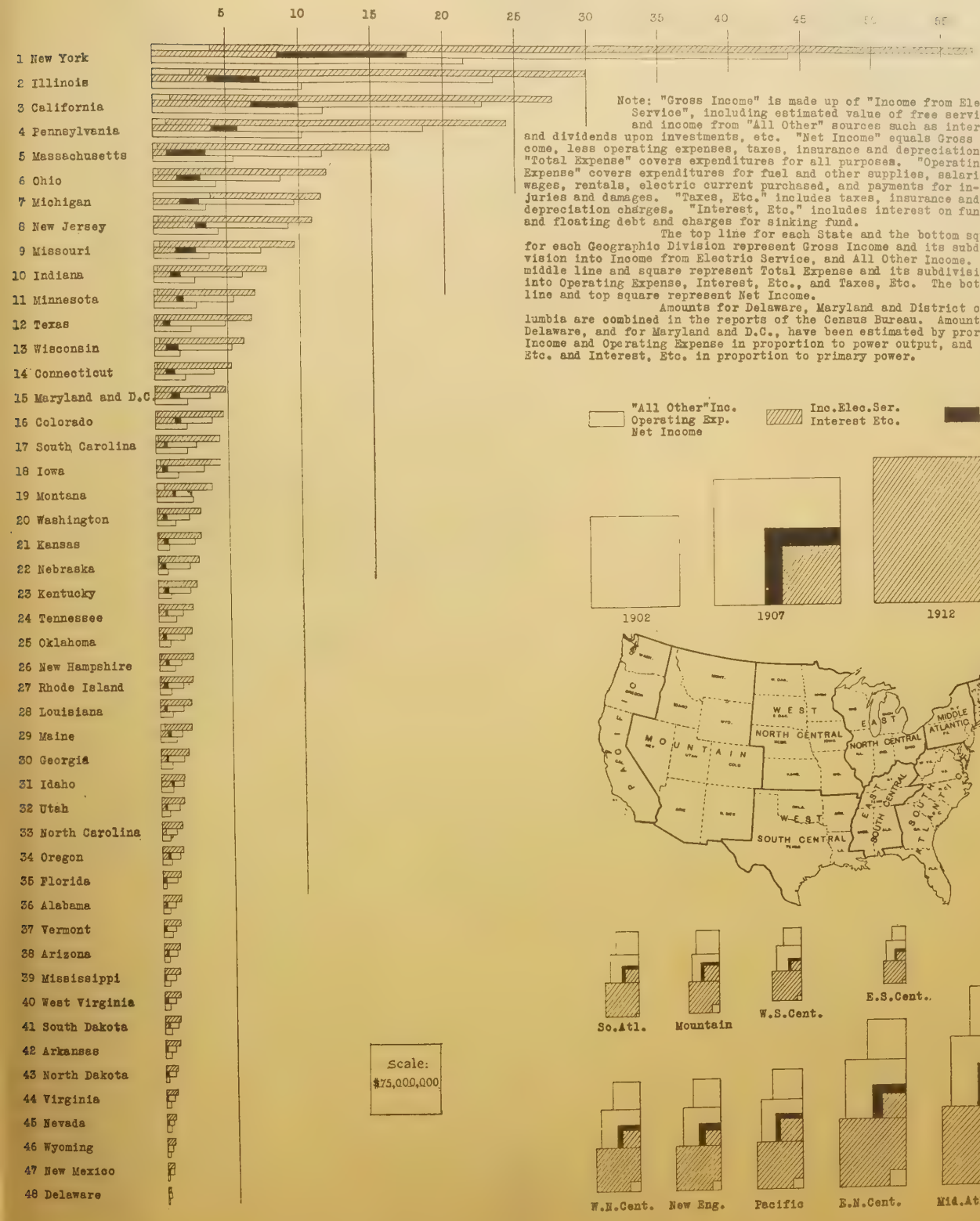
Note: "Gross Income" is made up of "Income from Electric Service", including estimated value of free service, and income from "All Other" sources such as interest and dividends upon investments etc. "Net Income" equals Gross Income, less operating expenses, taxes, insurance and depreciation. "Total Expenses" covers expenditures for all purposes. "Operating Expenses" covers expenditures for fuel and other supplies, salaries, wages, rentals, electric current purchased, and payments for injuries and damages. "Taxes Etc." includes taxes, insurance and depreciation charges. "Interest Etc." includes interest on funded and floating debt and charges for sinking fund.

The top line for each State and Geographic Division represent Gross Income and its subdivision into Income from Electric Service, and All Other Income; the middle line, Total Expense and its subdivision into Operating Expense, Interest, Etc., and Taxes, Etc.; the bottom line, Net Income.

Amounts for Delaware, Maryland and District of Columbia are combined in the reports of the Census Bureau. Amounts for Delaware, and for Maryland and D.C., have been estimated by prorating Income and Operating Expense in proportion to power output, and Taxes, Etc. and Interest, Etc. in proportion to primary power.

To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

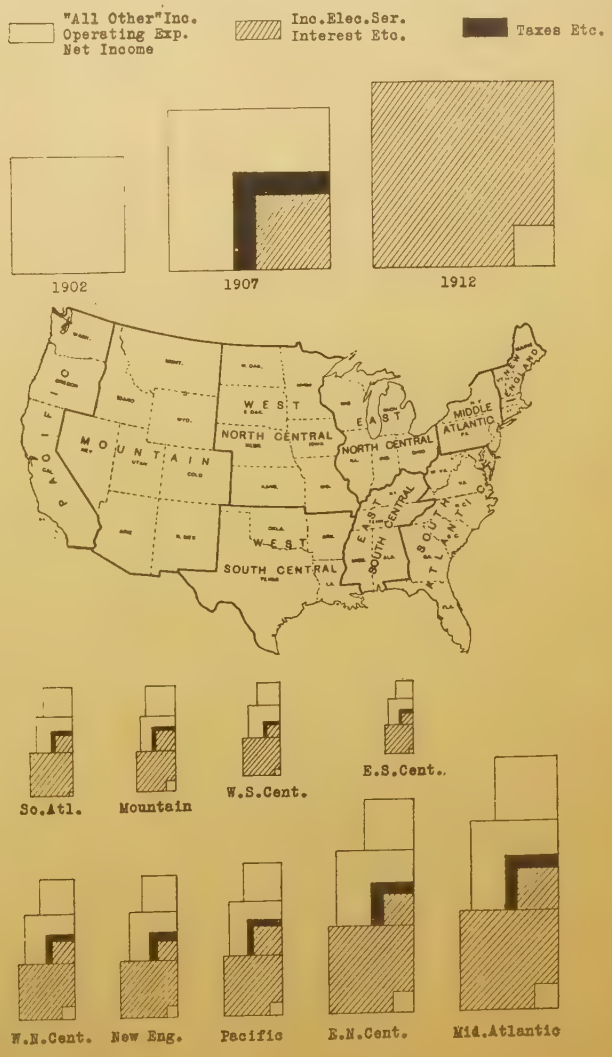
Gross and Net Income, Income from Electric Service and from All Other Sources,
Total and Operating Expenses, Interest and Sinking Fund Charges, Taxes, Insurance and Depreciation 1912
By States and by Geographic Divisions
In Million of Dollars



Note: "Gross Income" is made up of "Income from Electric Service", including estimated value of free service, and income from "All Other" sources such as interest and dividends upon investments, etc. "Net Income" equals Gross Income, less operating expenses, taxes, insurance and depreciation. "Total Expense" covers expenditures for all purposes. "Operating Expense" covers expenditures for fuel and other supplies, salaries, wages, rentals, electric current purchased, and payments for injuries and damages. "Taxes, Etc." includes taxes, insurance and depreciation charges. "Interest, Etc." includes interest on funded and floating debt and charges for sinking fund.

The top line for each State and the bottom square for each Geographic Division represent Gross Income and its subdivision into Income from Electric Service, and All Other Income. The middle line and square represent Total Expense and its subdivision into Operating Expense, Interest, Etc., and Taxes, Etc. The bottom line and top square represent Net Income.

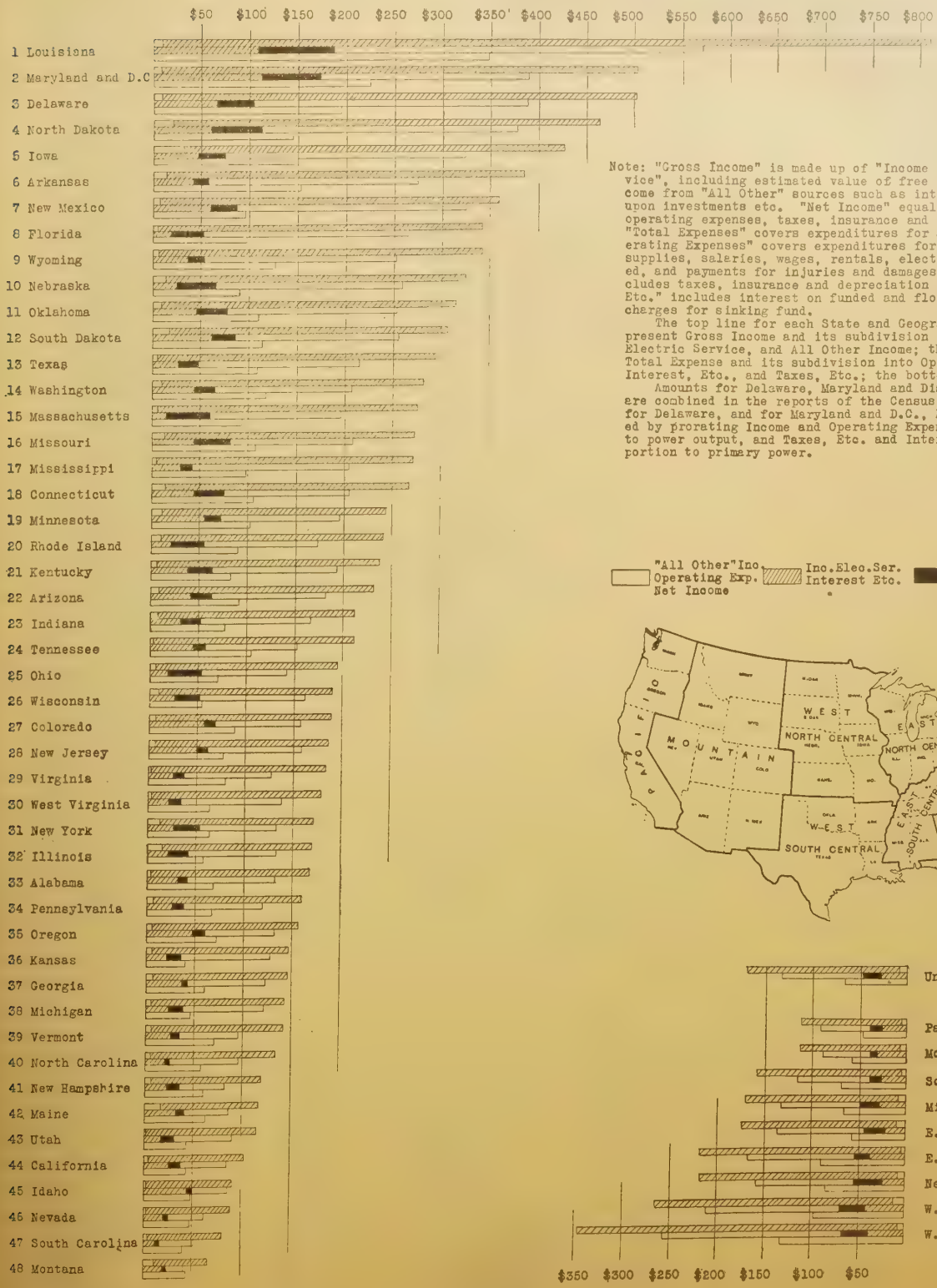
Amounts for Delaware, Maryland and District of Columbia are combined in the reports of the Census Bureau. Amounts for Delaware, and for Maryland and D.C., have been estimated by prorating Income and Operating Expense in proportion to power output, and Taxes, Etc. and Interest, Etc. in proportion to primary power.



To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

COMMERCIAL AND MUNICIPAL CENTRAL STATIONS

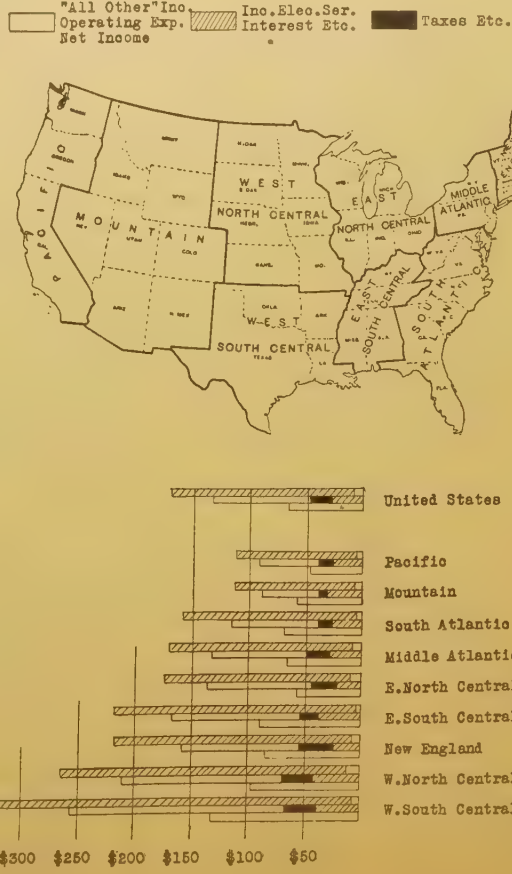
Gross and Net Income, Income from Electric Service and from All Other Sources, Total and Operating Expenses, Interest and Sinking Fund Charges, Taxes, Insurance and Depreciation 1912
By States and by Geographic Divisions
Per Horse-Power Year of Output



Note: "Gross Income" is made up of "Income from Electric Service", including estimated value of free service, and income from "All Other" sources such as interest and dividends upon investments etc. "Net Income" equals Gross Income, less operating expenses, taxes, insurance and depreciation. "Total Expenses" covers expenditures for all purposes. "Operating Expenses" covers expenditures for fuel and other supplies, salaries, wages, rentals, electric current purchased, and payments for injuries and damages. "Taxes Etc." includes taxes, insurance and depreciation charges. "Interest Etc." includes interest on funded and floating debt and charges for sinking fund.

The top line for each State and Geographic Division represent Gross Income and its subdivision into Income from Electric Service, and All Other Income; the middle line, Total Expense and its subdivision into Operating Expense, Interest, Etc., and Taxes, Etc.; the bottom line, Net Income.

Amounts for Delaware, Maryland and District of Columbia are combined in the reports of the Census Bureau. Amounts for Delaware, and for Maryland and D.C., have been estimated by prorating Income and Operating Expense in proportion to power output, and Taxes, Etc. and Interest, Etc. in proportion to primary power.



To accompany report on Sen. Res. No. 544, 63rd. Cong., 3rd. Sess.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

The data appearing in the following pages were obtained in the first instance from such sources of information as the McGraw Directories, Moody's and Poor's Manuals, to the district engineers of the Forest Service to be checked by field examinations. Data for the remaining States were submitted directly to the officials of the operating accuracy of the data for the remaining stations depends upon the correctness of the published sources of information. Whenever information from the various sources secured. These sources are indicated by key initials on the detailed sheets, as follows: "C," data furnished by company officials; "F," field investigations by Directory, October, 1914, and April, 1915, and McGraw Electric Railway Directory, August, 1914; "O," miscellaneous office records consisting chiefly of reports of Office Records; "SDC," State Drainage Commission Report.
The detailed sheets also indicate by key initials the character of the companies owning or controlling the several stations as follows: "D," distributing company; "G,"

ALABAMA.

A—PUBLIC UTILITY PLANTS.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
1	Alabama City, Gadsden & Attalla Ry. Co	GD	Gadsden	Gadsden	Gadsden	
2	Alabama Fuel & Iron Co			Margaret		
3	Alabama Polytechnic Institute	GD	Auburn and college	Auburn	Auburn	
	Alabama Traction, Light & Power Co	H				
4	Alabama Power Co	GD		Gadsden	Gadsden	
5	Do	GTD	Northern Alabama	Jackson Shoals	Jackson Shoals	Chocolocca Creek
6	Do	GTD		Lock No. 12	Lock No. 12	Coosa River
7	Anniston Electric & Gas Co	TD	Anniston, Oxford, and Hobson City.	Anniston		
8	Decatur Light, Power & Fuel Co		New Decatur and Decatur	New Decatur	New Decatur	
9	Etowah Light & Power Co	D	Attalla	Attalla		
10	Huntsville Railway, Light & Power Co	GTD	Huntsville	Huntsville	Huntsville	
11	Aliceville Electric Co	GD	Aliceville	Aliceville	Aliceville	
	American Pipe & Construction Co	H				
12	Selma Lighting Co	GD	Selma	Selma	Selma	
13	Andalusia Light & Water Co	GD	Andalusia	Andalusia	Andalusia	
14	Antanga Oil & Fertilizer Co	GD	Prattville and vicinity	Prattville	Prattville	
	Calera Electric Light Co	GD				
15	(Lessor, Alabama Cooperage Co.)	L	Calera	Calera	Calera	
16	Carney, W. M., Mill Co	GD	Atmore and vicinity	Atmore	Atmore	
17	Centerville Light & Power Co	GD	Centerville and Brent	Centerville		Shoultry Creek
18	Citronelle Public Service Corporation	D	Citronelle	Citronelle	Citronelle	
19	Columbiana Ice, Light & Power Co	GD	Columbiana	Columbiana	Columbiana	
	Columbia Power Co	GD				
20	(Lessor, City of Columbia)	L	Columbia	Columbia		
	Crawford Mercantile Co.:					
21	Jasper Water, Light & Power Co	GD	Jasper	Jasper	Jasper	
22	Demopolis Electric Light & Power Co	GD	Demopolis and Knoxwood	Demopolis	Demopolis	
	Doherty Operating Co	M				
23	Montgomery Light & Water Power Co	GTD	Montgomery	Montgomery	Montgomery	Tallapoosa River
24	Eutaw Ice, Water & Power Co	GD	Eutaw	Eutaw	Eutaw	
25	Greensboro Water & Light Co	GD	Greensboro	Greensboro	Greensboro	
26	Heflin Electric Co	GD	Heflin	Heflin	Heflin	
27	Henderson Light & Power Co	GD	Greenville	Greenville	Greenville	
28	Jackson Electric Co	GD	Jackson	Jackson	Jackson	
29	McClung, J. M., & Co	GD	Florala	Florala	Florala	
30	Marion Electric Co	GD	Marion	Marion	Marion	
31	Montgomery Light & Traction Co	GTD	Montgomery and vicinity	Montgomery	Montgomery	
32	Peoples Electric & Ice Co	GD	Montgomery	do	do	
33	Sheffield Co. (The)	GTD	Sheffield, Florence, and Tuscumbia.	Sheffield	Sheffield	
34	Smith, B. M., Electric Co	GD	Lineville	Lineville	Lineville	
35	Smith, H. A., Light & Power Works	GD	Gurley	Gurley	Gurley	
	Byllesby, H. M., & Co.[a]	M				
36	Mobile Electric Co	GD	Mobile and vicinity	Mobile	Mobile	
37	Thomasville Manufacturing, Electric Light & Power Co.	GD	Thomasville	Thomasville	Thomasville	
38	Tuscaloosa Ice & Light Co	GD	Tuscaloosa	Tuscaloosa	Tuscaloosa	
	United Gas & Electric Corporation of Connecticut	H				
39	Birmingham Railway, Light & Power Co	GTD	Birmingham and vicinity	Birmingham	Birmingham	
40	Wade Electric Light & Power Co	GD	Clanton	Clanton	Clanton	
41	West Point Manufacturing Co	GD	West Point, Ga., and	Langdale	Langdale	
42	Do	GD	East Central, Alabama	do	do	Chattahoochee River
43	White Water Lumber Co	D	Autaugaville	Autaugaville	Autaugaville	

[a] H. M. Byllesby & Co., not placed in alphabetical order.

B—MUNICIPAL PLANTS.

44		GD	Abbeville	Abbeville	Abbeville	
45		GD	Alexander City	Alexander City	Alexander City	
46		GD	Athens	Athens	Athens	
47		GD	Birmingham	Birmingham	Birmingham	
48		GD	Brewton	Brewton	Brewton	
49		GD	Brundidge	Brundidge	Brundidge	
50		GD	Carbon Hill	Carbon Hill	Carbon Hill	
51		GD	Clayton	Clayton	Clayton	
52		GD	Cullman	Cullman	Cullman	
53		GD	Dadeville	Dadeville		
54		GD	Dothan	Dothan	Dothan	
55		GD	Enterprise	Enterprise	Enterprise	
56		GD	Eufaula	Eufaula	Eufaula	
57		GD	Evergreen	Evergreen	Evergreen	
58		GD	Good Water	Good Water		
59		GD	Hartford	Hartford	Hartford	
60		GD	Headland	Headland	Headland	
61		GD	Lafayette	Lafayette	Lafayette	
62		GD	Luverne	Luverne	Luverne	
63		GD	Opelika	Opelika	Opelika	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915.

reports of State public utility commissions, and engineering periodicals. The information so secured was tabulated by stations and submitted, for the Western States, companies for verification or correction. At the date of submitting this report, replies have been received from considerably more than one-half of the stations listed. The differs, that information which appears the most reliable has been taken, but reference has been made in the detailed sheets to all the sources from which data were secured. Forest officers; "M," Moody's Manual of Railroad and Corporation Securities, 1914 and 1915, and Poor's Manual of Public Utilities, 1914; "Mc," McGraw Electrical public utility commissions and engineering periodicals; "P," Reports of State public utility and railroad commissions; "SE," State Engineer's Report, "L," Land

generating company; "H," holding company; "M," managing company; "T," transmission company.

ALABAMA.

A—PUBLIC UTILITY PLANTS.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-month.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
1			800	1,500		1,000	$0.16 –$0.10	$0.075–$0.025		Mc. C.
2										M.
3	Private		300	300		210	.15 – .07	.08 – .05		Mc. C.
4	Do		3,600	16,670		12,500	.10	.03 – .004		Mc.M.O.C.
5	Do	2,500				1,500	.10			Mc.M.O.C.
6	Do	70,000				54,000	.10			M. O. C.
7										Mc. M.
8	Private		625	700		600	.14	.07 – .02		Mc. M. C.
9										Mc.
10			1,056	1,550		1,325				Mc. M.
11	Private		50	80		60	.15	.10 – .03		Mc. C.
12			750	1,320		1,800				Mc. M.
13			300	240		140				Mc. M.
14	Private		500	300		250	.12 – .06	.06 – .04		Mc. C.
15				25		15	.12			C.
16	Private		300	400		325	.125	.04		C.
17	Do	90	60	50		37½	.15	.10		Mc. C.
18			120	150		105				Mc.
19	Private		100	60		36	.135	.10		Mc. C.
20		247				65				Mc.
21	Private		250	375		225	.12 – .09	.07 – .03		Mc. M. C.
22			225	280		225	.15			Mc.
23		5,000	2,344	3,420		7,235	.15			Mc. M. C.
24	Private		160	125		75	.18 – .04	.15 – .02		Mc. C.
25	Do		125	155		160				Mc. C.
26			35	35		15				Mc.
27			300	250		175	.125	.035		Mc. M. C.
28			200	125		75	.15	.10 – .05		C.
29			140	67		62½				Mc.
30			125	125		100				Mc.
31			3,200	6,670		6,500				Mc. M.
32						210				Mc.
33	Private		1,200	3,432		1,825	.12 – .06	.03 – .0225		Mc. C.
34				25					Buys steam	Mc.
35	Private		100	90		60				Mc. C.
36	Do		3,450	9,330		7,355	.07 – .045	.06 – .0125		Mc. M. C.
37	Do		140	80		50	.18 – .162	.18 – .162		Mc. C.
38			800	1,300		1,300	.10	.05		Mc. C.
39	Private		17,200	16,300		17,400	.10 – .05		Alabama Power Co	Mc. M. C.
40			130	135		103				Mc.
41	Private		2,140	4,200		3,150	.0875	.0875		C.
42	Do	3,950				2,640	.0875	.0875		O. M. C.
43	Do									C.
	Total, A	81,784	35,587	68,864		122,909				

B—MUNICIPAL PLANTS.

44	Private		200	100		75				Mc. C.
45			200	150		35				Mc.
46			400	600		500				Mc.
47	Private		700	450		350	$0.10 –$0.06	$0.07		Mc. C.
48	Do		360	250		190	.125– .10	$0.09 – .0525		Mc. C.
49			100	85		60				Mc.
50	Private		200	155		145	.15 – .10			Mc. C.
51			160	125		75				Mc.
52			300	425		290				Mc.
53		312				173				Mc.
54			500	450		300				Mc.
55			180	80		65				Mc.
56			400	300		225				Mc. C.
57	Private		200	100		60	.14 – .09			Mc.
58		120				80				Mc. C.
59	Private		80	120		80				Mc.
60			250	55		65				Mc.
61			100	150		100				Mc.
62			100	90		62				Mc. C.
63	Private		300	356		335	.12 – .08	.07 – .03		

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

ALABAMA—Continued.

B.—MUNICIPAL PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
64		GD	Opp	Opp	Opp	
65		GD	Ozark	Ozark	Ozark	
66		GD	Piedmont	Piedmont	Piedmont	
67		GD	Roanoke	Roanoke	Roanoke	
68		GD	Russellville	Russellville	Russellville	
69		GD	Sampson	Sampson	Sampson	
70		GD	Slocomb	Slocomb	Slocomb	
71		GD	Sylacauga	Sylacauga	Sylacauga	
72		GD	Troy	Troy	Troy	
73		GD	Tuskegee	Tuskegee	Tuskegee	
74		GD	Tuskegee Institute	Tuskegee Institute	Tuskegee Institute	
75		GD	Union Springs	Union Springs	Union Springs	
76		GD	Uniontown	Uniontown	Uniontown	
77		GD	Wetumpka	Wetumpka	Wetumpka	

C.—ALL OTHER PLANTS.

	Alabama Marble Co. of New York	H				
78	Alabama Marble Co. of Alabama	G	Manufacturing and quarrying.	Gantts Quarry	S. 2, T. 22 S., R. 3 E.	
	Gulf States Steel Co.	H				
79	Southern Iron & Steel Co.	G		Birmingham		
	International Cotton Mills	H				
80	Tallassee Falls Manufacturing Co.		Cotton mills	Tallassee		Tallapoosa River.
81	Pell City Manufacturing Co.	G	Lighting mills	Pell City	Pell City	

ARKANSAS.

A.—PUBLIC UTILITY PLANTS.

1	Arkansas Light & Power Co.	GD	Camden	Camden	Camden	
2	Do.	GD	El Dorado	El Dorado	El Dorado	
3	Do.	GD	Magnolia	Magnolia	Magnolia	
4	Do.	GD	Malvern and Arkadelphia	Malvern	Malvern	
5	Do.	GD	Marianna	Marianna	Marianna	
6	Do.	GD	Newport	Newport	Newport	
7	Do.	GD	Paragould	Paragould	Paragould	
8	Arkansas Lumber Co.	G	Warren	Warren	Warren	
9	Arkansas Public Service Co.	GD	Augusta	Augusta	Augusta	
10	Atkins Electric Light & Power Co.	GD	Atkins	Atkins	Atkins	
11	Benton Electric Light, Power & Ice Co.	GD	Benton	Benton	Benton	
12	Berryville Milling Co.	GD	Berryville	Berryville	Berryville	
13	Bodcaw Lumber Co.	GD	Stamps	Stamps	Stamps	
14	Booser, Geo., Electric Light Plant	D	Corning	Corning	Corning	
15	Brinkley Water & Light Co.	GD	Brinkley	Brinkley	Brinkley	
16	Brockman, Geo. F., Light Plant	GD	Ozark, Altus, and Denning	Ozark	Ozark	
	Byllesby, H. M. & Co.	M				
17	Fort Smith Light & Traction Co.	GTD	Fort Smith and Van Buren	Fort Smith	Fort Smith	
18	Citizens Ice & Public Utilities Co.	GD	Junction City	Junction City	Junction City	
19	Clarendon Electric Light & Ice Co.	GD	Clarendon	Clarendon	Clarendon	
20	Coal & Gas Belt Electric Co.	GD	Huntington and vicinity	Huntington	Huntington	
21	Cotton Plant Light & Power Co.	GD	Cotton Plant	Cotton Plant	Cotton Plant	
22	Crittendon Power Co.	GD	Earle	Earle	Earle	
23	De Queen Ice & Light Co.	GD	De Queen	De Queen	De Queen	
24	Des Arc Oil Mill	GD	Des Arc	Des Arc	Des Arc	
25	Devall Bluff Electric Light Co.	GD	Devall Bluff	Devall Bluff	Devall Bluff	
26	Eureka Springs Electric Co.	GD	Eureka Springs	Eureka Springs	Eureka Springs	
27	Fayetteville Gas & Electric Co.	GD	Fayetteville and vicinity	Fayetteville	Fayetteville	
	Federal Light & Traction Co.	H				
28	Citizens Electric Co.	GD	Hot Springs	Hot Springs	Hot Springs	
29	Fordyce Light & Water Co.	GD	Fordyce and Kingsland	Fordyce	Fordyce	
30	Gertrude Mining Co.	GD	Rush	Rush	Rush	
31	Greenway & Harvey	GD	Booneville and Magazine	Booneville	Booneville	
32	Greenwood Light & Power Co.			Greenwood		
33	Harrisburg Electric Light & Power Co.	GD	Harrisburg	Harrisburg	Harrisburg	
34	Harrison Gas & Electric Co.	GD	Harrison	Harrison	Harrison	
35	Hazen Light & Power Co.	GD	Hazen and Tollville	Hazen	Hazen	
36	Heber Springs Light Co.	GD	Heber Springs	Heber Springs	Heber Springs	
	Johnson, William	GD				
37	(Lessor, Danville Electric Co.)	L	Danville	Danville	Danville	
38	Lewisville Light & Water Co.	D	Lewisville	Lewisville	Lewisville	
39	Lonoke Light & Water Co.	GD	Lonoke	Lonoke	Lonoke	
40	Luxora Water & Light Co.	GD	Luxora	Luxora	Luxora	
41	Mammoth Springs Electric Light & Power Co.	GD	Mammoth Springs and vicinity.	Mammoth Springs	Mammoth Springs	
42	Mena Electric Light & Power Co.	GD	Mena	Mena	Mena	
43	Merchants Lighting Co.	GD	Little Rock and vicinity	Little Rock	Little Rock	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

ALABAMA—Continued.

B.—MUNICIPAL PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or Horsepower-year.	Purchases power from—	Source of information.
64			80	90		50	$0.10			M.
65			300	300		250				Mc. C.
66									Alabama Power Co.	M. C.
67			300	190		125	$0.12 -$0.08	$0.075-$0.03		Mc. C.
68			200	87		50				Mc.
69			150	100		(60)				Mc
70			125	100		60				
71		250	220	120		330				Mc.
72			300	350		240	.075			Mc.
73			175	165		105				Mc.
74			805	574		400	.05			C.
75	Private		250	350		280	.135- .08	.145- .05		Mc. C.
76			175	165	15	130				Mc.
77	Private		250	150		85	.15	.125		Mc. C.
	Total, B	682	8,060	6,832	15	5,430				

C.—ALL OTHER PLANTS.

78	Private		1,200	670		625				M. Mc.
79										M.
80			5,800							O. M.
81	Private		1,250	1,250		75				C.
	Total, C		8,250	1,920		700				
	Grand total	82,466	51,897	77,616	15	129,039				

ARKANSAS.

A.—PUBLIC UTILITY PLANTS.

1	Private		400	650		425		$0.08 -$0.03		Mc. C.
2	do		350	450		300		.08 - .03		Mc. C.
3			160	235		125		.08 - .03		Mc. C.
4				1,000		625	$0.15	.08 - .03		Mc. C.
5	Private		160	200		150	$0.15 - .055	.08 - .03		C.
6	Do		250	335		250	.125- .09	.09 - .03		Mc. C.
7	Do		650	750		375	.15 - .06	.08 - .03		Mc. C.
8	Do		150	200		150				Mc. C.
9			250	120		100				Mc.
10	Private		160	125		37½	.15 - .10			Mc. C.
11			175	160		125				Mc.
12	Private		175	180		50	.10 - .07			Mc. C.
13			300	150		95				Mc. C.
14										Mc.
15	Private		350	350		200				Mc. C.
16			80	160		160				Mc.
17			2,540	5,425		3,450	.15 - .025	.05 - .0199		M. Mc. C.
18			220	100		(60)				Mc.
19			235	125		60				Mc. C.
20			250	330		250				Mc.
21			150	100		75				Mc.
22			100	150		112½				M.
23			350	275		85				Mc. C.
24			160	70		82½	.15			Mc. C.
25			100	60		(35)				Mc.
26	Private		450	580		467	.18 - .08	.10 - .06		Mc. C.
27			750	1,020		600	.10 - .06	.08 - .04		M. C.
28	Private		1,264	3,000		2,250	.12 - .075	.09 - .035		M. Mc. C.
29	Do		180	225		150		.08 - .03		Mc. C.
30			100	85		35				C.
31			200	410		325	.15 - .10	.10 - .03		Mc. C.
32										S.
33			100	65	25	45	.125			Mc. C.
34			400	150	200	175				M. Mc.
35			300	250		160				Mc.
36	Private		125	120		90	.15	.10 - .05		Mc. C.
37	Do		80	75		50				Mc. C.
38										Mc.
39			150	250		165				Mc.
40			80	50		40	.15	.15		Mc. C.
41		1,600				600				Mc.
42	Private		160	130		115	.15			Mc. C.
43			2,400	3,330		2,500				Mc.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

ARKANSAS—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
44	Missouri & Southeastern Utilities Co	GD	Blytheville	Blytheville	Blytheville	
45	Morrillton Light & Power Co	GD	Morrillton	Morrillton	Morrillton	
46	Nashville Ice, Coal & Light Co	GD	Nashville	Nashville	Nashville	
47	Pine Bluff Co	GD	Pine Bluff	Pine Bluff	Pine Bluff	
48	Pocahontas Light, Power & Ice Co	D	Pocahontas	Pocahontas	Pocahontas	
49	Rector Light & Water Co	GD	Rector	Rector	Rector	
50	Rogers Light & Water Co	GD	Rogers	Rogers	Rogers	
	Scofield Engineering Co., of Philadelphia					
51	Helena Gas & Electric Co	GD	Helena	Helena	Helena	
	Seven Cities Co.	H				
52	Russellville Water & Light Co	GD	Russellville and Dardanelle	Russellville		
53	Southwestern Gas & Electric Co	GD	Texarkana, Ark. and Tex	Texarkana	Texarkana	
54	Springdale Light & Power Co	GD	Springdale	Springdale	Springdale	
55	Stuttgart Water & Electric Light Co	GD	Stuttgart	Stuttgart	Stuttgart	
	United Gas & Electric Corporation of Connecticut.					
56	Little Rock Railway & Electric Co	GTD	Little Rock and vicinity	Little Rock	Little Rock	
57	Walnut Ridge & Hoxie Light, Power & Transit Co.	GTD	Walnut Ridge and Hoxie	Walnut Ridge	Walnut Ridge	
58	Warren Light & Water Co	D	Warren	Warren	Warren	
59	Willmer, F. E., & G. R. Sanford Light Plant	GD	Gentry	Gentry	Gentry	

B.—MUNICIPAL PLANTS.

60	Arkansas State Penitentiary	GD	Batesville	Batesville	Batesville	
61		GD	Bentonville	Bentonville	Bentonville	
62		GD	Conway	Conway	Conway	
63		GD	Dermott	Dermott	Dermott	
64		GD	Forest City	Forest City	Forest City	
65		D	Gravette	Gravette	Gravette	
66		GD	Hamburg	Hamburg	Hamburg	
67		GD	Hope	Hope	Hope	
68		GD	Jonesboro	Jonesboro	Jonesboro	
69		GD	Little Rock Penitentiary	Little Rock	Little Rock	
70		GD	Little Rock	do	do	
71		GD	Monticello	Monticello	Monticello	
72		GD	Osceola	Osceola	Osceola	
73		GD	Prescott	Prescott	Prescott	
74		GD	Searcy	Searcy	Searcy	
75		GD	Siloam Springs	Siloam Springs	Siloam Springs	
76		GD	Wynne	Wynne	Wynne	

C.—ALL OTHER PLANTS.

77	Wilson, Lee & Co	G	Cotton mills, etc	Wilson	Wilson	

ARIZONA.

A.—PUBLIC UTILITY PLANTS.

1	Arizona Copper Co	GD	Clifton and Morenci	Clifton	Clifton	
2	Arizona Power Co	HGTD	Prescott and Jerome	Fossil Creek	Childs	Fossil Creek
3	Prescott Gas & Electric Co	GTD	Prescott	Prescott	Prescott	
4	Bisbee Improvement Co	GD	Bisbee and vicinity	Bisbee	Bisbee	
5	Calumet & Arizona Mining Co	GD	Bisbee and Warren	Warren	do	
6	Copper Queen Consolidated Mining Co	GD	Bisbee	Bisbee	do	
7	Do	GD	Douglas	Douglas	Douglas	
8	Desert Power & Water Co	GD	Kingman, Gold Road, and Oatman.	Kingman	Kingman	
9	Detroit Copper Mining Co	GD	Morenci	Morenci	Morenci	
10	Douglas Traction & Light Co	GD	Douglas	Douglas	Douglas	
	Federal Light & Traction Co	H				
11	Tucson Gas, Electric Light & Power Co	GD	Tucson	Tucson	Tucson	
12	Flagstaff Electric Light Co	GTD	Flagstaff and Milton	Flagstaff	Flagstaff	
13	Globe Light & Power Co	GD	Globe	Globe	Globe	
14	Miami Copper Co	GD		Miami	Miami	
15	Nogales Electric Light, Ice & Water Co	GD	Nogales and Sonora, Mexico	Nogales	Nogales	
16	Pacific Gas & Electric Co	GD	Phoenix	Phoenix	Phoenix	
17	Ray Consolidated Copper Co	GD		Hayden	Hayden	
18	Shannon Copper Co	GD		Clifton	Clifton	
19	South Side Gas & Electric Co	GD	Mesa	Mesa		
20	Tempe Light & Power Co	D	Tempe			
21	U. S. Reclamation Service	GD	Phoenix and vicinity	Arizona Falls	S. 28, T. 2 N., R. 4 E.	Salt River
22	Do	GD		Crosscut	S. 9, T. 1 N., R. 4 E.	do
23	Do	GD		Roosevelt	S. 19 and 20, T. 4 N., R. 12 E.	do

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

ARKANSAS—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
44	Private		860	925		575	$0.15–$0.075	$0.10 –$0.03		Mc. C.
45			200	100		100				Mc.
46			180	100		75	.15			Mc. C.
47			1,800	5,250		2,850	.15– .06	.05 – .02		M. Mc. C.
48	Private						.15		Walnut Ridge & Hoxie Light, Power & Transit Co.	Mc. C.
49			160	132		75	.12			Mc. C.
50			290	310		215	.10– .075	.08 – .06		Mc. C.
										Mc.
51			600	(1,670)		1,000	.20	.075		M. Mc.
52	Private	600	500	500		800	.15– .10	.05 – .02		M. Mc. C.
53	Do		1,550	3,350		2,375	.10– .06	.06 – .025		Mc. M. C.
54			125	250		80				Mc.
55			180	180		145				Mc.
56	Private		4,400	9,900		7,300	.10	.075		M. Mc. C.
57			500	750		630				Mc.
58									Arkansas Lumber Co.	Mc. C.
59					20	12				Mc.
	Total, A	2,200	25,799	44,857	245	31,377				

B.—MUNICIPAL PLANTS.

60	Private		360	475		310	$0.10	$0.06		Mc. C.
61			300	325		225				Mc.
62			150	300		270				Mc.
63			180	200		100				Mc.
64	Private		(225)	250		225				Mc. C.
65										Mc.
66			100	(125)		75				Mc.
67			300	650		500				Mc.
68			475	1,110		720				Mc.
69	Private		200	(110)		66				C.
70			350	500		500				Mc.
71	Private		200	240		150	.125	.09 – .07		Mc. C.
72	Do				130	100	$0.12– .10	.075 – .05		C.
73			(125)	140		125				Mc.
74	Private		180	262		175	.10– .08	.08 – .06		Mc. C.
75	Do		140	325		150	.12– .08	.055– .025		Mc. C.
76			220	120		80				Mc.
	Total, B		3,505	5,132	130	3,771				

C.—ALL OTHER PLANTS.

77	Private		900	850		600				C.
	Total, C		900	850		600				
	Grand total	2,200	30,204	50,839	375	35,748				

ARIZONA.

A.—PUBLIC UTILITY PLANTS.

1			(7,000)	10,000		8,700				Mc. M. C.
2	Forest	9,000				6,750				O. C.
3			600	750		330				Mc. M.
4			900	1,075		800	$0.16–$0.025			Mc. C.
5	Private		1,640	3,700		1,500				Mc. M. C.
6			(1,500)	(2,500)		1,500				C.
7			(1,600)	(2,670)		1,600				C.
8			2,400	4,000		4,000	.12			Mc.
9	Private		1,349	1,970			.15– .06			M. O.
10	Do		250	500		520	.15– .015		Copper Queen Consolidated Mining Co.	Mc. M. C.
11			750	1,310	870	1,760				Mc.
12	Private		300	300		250	.18– .06	$0.09–$0.04		Mc.
13			500	850		575				M. Mc. C.
14			(3,000)	(5,000)		3,000				M. C.
15			330	275		187	.20			M. Mc. C.
16			1,200	1,340		1,000	.08– .025		U. S. Reclamation Service	M. Mc. C.
17			(8,000)	(14,700)		8,800				M. C.
18			500	300		295				M. C.
19		380	200	400		300			U. S. Reclamation Service	Mc. O.
20									South Side Gas & Electric Co.	Mc.
21	Government	7,450				1,060	.05	.05		Mc. O. C.
22	Do	6,000				5,250	.05	.05		Mc. O. C.
23	Do	8,000				10,000	.05	.05		Mc. O. C.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY, **ARIZONA**—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
24	U. S. Reclamation Service	GD		South Consolidated	S. 22, T. 2 N., R. 6 E.	Salt River
25	Upper Verde Public Utilities Co	D	Jerome			
26	Warren-Bisbee Railway	D	Warren			
27	Williams Water & Electric Co	GTD	Williams, Ashfork, and Flagstaff.	Williams	Williams	
28	Winslow Electric Light & Power Co	GD	Winslow	Winslow	Winslow	
29	Yuma Electric & Water Co	GD	Yuma	Yuma	Yuma	

B.—MUNICIPAL PLANTS.

30		D	Glendale	Glendale		
31		GD	Pima	Pima		

CALIFORNIA.

A.—PUBLIC UTILITY PLANTS.

1	Alpine Evaporated Cream Co	GD	Gonzales	Gonzales	Gonzales	
2	Alturas Electric Light & Power Co	GD	Alturas	Alturas	S. 35, T. 42 N., R. 13 E.	Pine Creek
3	Amador Electric Light & Power Co	D	Amador City and vicinity			
4	Barstow Utilities Co	D	Barstow		Barstow	
5	Bay Point Light & Water Co	GD	Bay Point		Bay Point	
6	Bell Electric Co	D	East Auburn		East Auburn	
7	Ben Lomond Light Co	D	Ben Lomond		Ben Lomond	
8	Boulder Creek Electric Light & Water Co	GD	Boulder Creek	Boulder Creek		Boulder Creek
	Byllesby, H. M., & Co	M				
9	San Diego Consolidated Gas & Electric Co	GTD		San Diego	San Diego	
10	Western States Gas & Electric Co. of California	GTD	San Joaquin, Sacramento, Eldorado, Amador, Contra Costa, and Humboldt Counties.	American River		South Fork American River.
11	Do	GTD	do	Eureka		Trinity River
12	Do	GTD	do	do		
13	Do	GTD	do	Junction City		Canyon Creek
14	Do	GTD	do	Stockton		
15	Cain, J. S	GT		Green Creek		Green Creek
16	California-Oregon Power Co	GTD	Northern California and southern Oregon.	Falls Creek	T. 48 N., R. 5 W	Fall Creek
17	Do	GTD	do	Shasta	T. 45 N., R. 7 W	Shasta River
18	California Telephone & Light Co	TD	Sonoma County			
19	Coachella Valley Ice & Electric Co	TD	Imperial and Coachella Valleys.			
20	Coast Counties Gas & Electric Co	GD	Santa Cruz, Capitola, Seabright, Davenport, Watsonville, and vicinity.	Big Creek	S. 8, T. 10 S., R. 3 W.	Big Creek
21	Do	GD	do	Santa Cruz	Santa Cruz	
22	Do	GD	do	Watsonville	Watsonville	
23	Crescent City Light, Water & Power Co	GD	Crescent City	Crescent City		
24	Diamond Match Co	GD	Stirling City	Stirling City	Stirling City	
25	Downieville Electric Light Co	GD	Downieville	Downieville		
26	Durham Light & Power Co	D	Durham and Dayton			
27	Dutch Flat Electric Light Plant	D	Dutch Flat		Dutch Flat	
28	Escondido Utilities Co	GD	Escondido	Escondido	Escondido	
29	Forest Hill Electric Co	GD	Forest Hill	Forest Hill		
30	Fort Bragg Electric Co (Lessor, Union Lumber Co.)	GTD L	Fort Bragg	Fort Bragg	Fort Bragg	
31	Half Moon Bay Light & Power Co	D	Half Moon Bay		Half Moon Bay	
32	Hemet Milling & Power Co	GD	Hemet	Hemet	Hemet	
33	Holton Power Co	GTD	Brawley, Calexico, El Centro, Holtville, and Imperial.	El Centro		
34	Do	GTD	do	do		
35	Do	GTD	do	Holtville, No. 1		
36	Do	GTD	do	Holtville, No. 2		
37	Huntington Beach Co	GD	Huntington Beach	Huntington Beach	Huntington Beach	
38	Jensen, N. P		Lakeview, Oreg., and Fairport, Cal.	Jensen's	T. 48 N., R. 15 E	New Pine Creek
39	Lacey, H. G., Co	D	Hanford	Hanford		
40	Lassen Electric Co	GD	Susanville and Halltown	Bunnell Springs		
41	Do	GD	do	Susan River		
42	Light & Power Utilities Co	D	Banning		Banning	
43	Lompoc Light & Power Co	GD	Lompoc	Lompoc	Lompoc	
44	Loyalton Electric Light Co	GD	Loyalton	Loyalton	Loyalton	
45	McKinley Bros. Light Plant	GD				
46	Mariposa Commercial & Mining Co	GD	Bagby, Mount Bullion, and Mariposa.	Bagby	S. 6, T. 4 S., R. 17 E.	
47	Mendocino Electric Light & Power Co	D	Mendocino County			
48	Middle Yuba Hydro-Electric Power Co	D	Alleghany and vicinity			

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

ARIZONA—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
24	Government	2,800				2,500	$0.05	$0.05		Mc. O. C.
25									Arizona Power Co.	Mc. O.
26									Calumet & Arizona Mining Co.	M. Mc.
27	Private		350	500		225	.20	$0.20–.05		Mc. C.
28			200	175		200				Mc. C.
29	Private		650	1,500		700	$0.10–.055			Mc. C.
	Total A	33,630	33,219	53,615	870	61,852				

B.—MUNICIPAL PLANTS.

30									U. S. Reclamation Service	Mc. C.
31				40		50				
	Total B			40		50				
	Grand total	33,630	33,219	53,645	870	61,852				

CALIFORNIA.

A.—PUBLIC UTILITY PLANTS.

1			400	150		50				Mc.
2		500				300				Mc. P.
3									Pacific Gas & Electric Co.	M. Mc. P.
4									Southern Sierras Power Co.	Mc.
5			(600)	800		250			Pacific Gas & Electric Co.	Mc. P.
6									do	P. O.
7									Coast Counties Gas & Electric Co.	Mc.
8		85				35				Mc. P.
9			5,494	12,350		12,470	$0.10	$0.08		Mc. P. M.
10		12,000				3,000			Pacific Gas & Electric Co.	Mc. O. M. P.
11		2,700	1,900	5,670		2,050				Mc. O. M. P.
12						1,000			Sierra & San Francisco Power Co.	Mc. O. M. P.
13	Forest	(2,500)				1,500			Great Western Power Co.	Mc. O. P.
14			(1,500)	2,000		2,250				Mc. P. M.
15		(600)				360				O.
16		(4,800)				2,850	1.00	.10		Mc. O. P.
17		500				360				P. Mc.
18									Pacific Gas & Electric Co. and S. M. W. & Power Co.	Mc. O. P.
19									Southern Sierras Power Co.	Mc.
20		900				810	.10	.05	Pacific Gas & Electric Co.	Mc. O. M. P.
21			1,400	1,900		1,000	.10	.05		Mc. O. M. P.
22			(750)	(1,250)		750				Mc. O. M. P.
23			140	80		45				Mc.
24			1,290	1,300		875			Pacific Gas & Electric Co.	Mc.
25		65				45				Mc.
26									Northern Electric Ry. Co.	Mc. O.
27									Pacific Gas & Electric Co.	Mc.
28			250	225		150				Mc. P.
29		100				80				Mc.
30				2,000		1,240			Buys steam	Mc. P.
31									Great Western Power Co.	Mc. O.
32			(75)	(125)		75				P.
33					1,000	750	.15	.15		Mc. O. P.
34			600	500		250				Mc. O. P.
35		1,500				250				Mc. O. P.
36						1,050				Mc. O. P.
37					180	60				Mc.
38	Private	90	80	80		75	$0.20–.10	$0.10–.05		C.
39										P.
40		275				150				P.
41						50				Mc. P.
42									Southern Sierras Power Co.	Mc.
43			150	200		105				Mc. P.
44			600	250		162				Mc. P.
45										P.
46	Private	700				400				Mc. O. P.
47									Fort Bragg Electric Co.	M.
48										P.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

CALIFORNIA—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
49	Mount Kinocti Light & Power Co.	D	Lakeport and Hopeland			
50	Mount Whitney Power & Electric Co.	GTD	Kings and Tulare Counties.	Kaweah, No. 1	S. 8, T. 17 S., R. 29 E.	Kaweah River
51	Do	GTD	do	Kaweah, No. 2	T. 17 S., R. 28 E.	do
52	Do	GTD	do	Kaweah, No. 3	S. 4, T. 17 S., R. 29 E.	do
53	Do	GTD	do	Tule	T. 21 S., R. 30 E.	Tule River
54	Do	GTD	do	Visalia	Visalia	
55	Municipal Light & Power Co.			San Francisco		
56	Napa Valley Electric Co.	D	St. Helena and vicinity			
57	Needles Gas & Electric Co.	GD	Needles	Needles	Needles	
58	Nevada-California Power Co.	GTD	Esmeralda County, Nev., Inyo, Mono, Riverside, and San Bernardino Counties, Cal.	Bishop Creek, No. 2	S. 9, T. 8 S., R. 31 E.	Bishop Creek
59	Do	GTD	do	Bishop Creek, No. 3	S. 36, T. 7 S., R. 31 E.	do
60	Do	GTD	do	Bishop Creek, No. 4	S. 19, T. 7 S., R. 32 E.	do
61	Bishop Light & Power Co.	D	Bishop	Bishop	Bishop	
62	Corona Gas & Electric Light Co.	D	Corona	Corona	Corona	
63	Southern Sierras Power Co.	GTD		Bishop Creek, No. 5	S. 17, T. 7 S., R. 32 E.	Bishop Creek
64	Do	GTD		Bishop Creek, No. 6	S. 9, T. 7 S., R. 32 E.	do
65	Do	GTD		San Bernardino	San Bernardino	
66	Northern California Power Co.			Coleman	S. 32, T. 30 N., R. 2 W.	Battle Creek
67	Do			Inskip	S. 3, T. 29 N., R. 1 W.	do
68	Do			Kilarc	S. 33, T. 33 N., R. 1 E.	Cow Creek
69	Do	GTD	Butte, Colusa, Glenn, Shasta and Tahama Counties.	Snow Creek	S. 18, T. 31 N., R. 1 E.	Snow Creek
70	Do			South	S. 5, T. 29 N., R. 1 E.	Battle Creek
71	Do			South Cow Creek	S. 6, T. 31 N., R. 1 W.	South Cow Creek
72	Do			Volta	S. 16, T. 30 N., R. 1 E.	Battle Creek
73	Northwestern Redwood Lumber Co	GD		Northwestern	S. 11, T. 18 N., R. 14 W.	
74	Novata Light & Power Co.	D	Novata			
75	Oceanside Electric & Gas Co.	GD	San Luis Rey Valley	Oceanside	Oceanside	
76	Oro Electric Corporation	GTD	Oroville & Stockton	Coal Canyon	S. 11, T. 20 N., R. 3 E.	Coal Canyon
77	Do			Lime Saddle	S. 6, T. 21 N., R. 4 E.	West Branch Feather River.
78	Do			Stockton	Stockton	
79	Pacific Gas & Electric Co.			Alta	S. 25, T. 16 N., R. 10 E.	North Fork American River.
80	Do			Centerville	S. 5, T. 22 N., R. 3 E.	Butte Creek
81	Do			Colgate	S. 16, T. 17 N., R. 7 E.	North Yuba River
82	Do			Deer Creek	S. 34, T. 17 N., R. 10 E.	South Yuba River
83	Do			De Sabla	S. 10, T. 23 N., R. 3 E.	Butte Creek
84	Do			Drum	S. 17, T. 16 N., R. 11 E.	South Yuba River
85	Do	GTD	Central California	Electra	S. 32, T. 6 N., R. 12 E.	Mokelumne River
86	Do			Folsom	S. 35, T. 10 N., R. 7 E.	American River
87	Do			Newcastle	S. 30, T. 12 N., R. 8 E.	North Fork American River.
88	Do			Oakland, "C"	Oakland	
89	Do			Sacramento, "B"	Sacramento	
90	Do			San Francisco, "A"	San Francisco	
91	Do			San Jose, "A"	San Jose	
92	Pacific Lighting Corporation. Los Angeles Gas & Electric Corporation.	GD	Los Angeles	Los Angeles	Los Angeles	
93	Pacific Light & Power Corporation			Azusa	S. 23, T. 1 N., R. 10 W., S. B. M.	San Gabriel River
94	Do			Big Creek, No. 1	S. 28, T. 8 S., R. 25 E.	Big Creek
95	Do			Big Creek, No. 2	S. 25, T. 8 S., R. 24 E.	do
96	Do			Borel	S. 10, T. 27 S., R. 32 E.	Kern River
97	Do			Highgrove	T. 1 S., R. 2 W., S.B.M.	Warm Springs Creek
98	Do			Mentone	S. 4, T. 1 S., R. 2 W., S. B. M.	Santa Ana River
99	Do			Oil Wells	Los Angeles	
100	Do			Redondo		
101	Do			Riverside	S. 32, T. 2 S., R. 6 W., S. B. M.	Santa Ana River
102	Do			Sierra	S. 36, T. 2 N., R. 8 W., S. B. M.	San Antonio Creek
103	Do			Third Street	Los Angeles	
104	Lessor, Pacific Electric Ry. Co.	L		Central Avenue	do	
105	Ventura County Power Co.	GTD	Oxnard and vicinity	Oxnard	Oxnard	
106	Pacific Power Co. (Leased)	GTD	Esmeralda County, Nev.	Lundy Lake		Mill Creek
107	Do			Mill Creek	S. 12, T. 2 N., R. 25 E.	do
108	Pinole Electric Light & Power Co.	D	Pinole		Pinole	
109	Plumas Light & Power Co.	GD	Greenville and Crescent Mills	Greenville		
110	Point Arena Electric Light Co.	GD	Point Arena	Point Arena	Point Arena	
111	Quincy Electric Light & Power Co.	GD	Quincy	Quincy		
112	Rialto Light, Power & Water Co.	D				
113	San Antonio Water Co. Ontario Power Co.	H. GD	Ontario and Upland	Ontario	T. 1 N., R. 8 W., S. B. M.	San Antonio Creek
114	Do			Upland		
115	San Joaquin Light & Power Corporation			Bakersfield	Bakersfield	
116	Do			Fresno	Fresno	
117	Do			Kern Canyon	S. 6, T. 29 S., R. 30 E.	Kern River
118	Do	HGTD	South Central California	New San Joaquin	S. 13, T. 9 S., R. 23 E.	North Fork San Joaquin.
119	Do			Plant No. 3	S. 12, T. 8 S., R. 22 E.	do
120	Do			San Luis Obispo	San Luis Obispo	
121	Do			Santa Maria	Santa Maria	
122	Do			Tule River	S. 26, T. 20 S., R. 30 E.	Middle Tule River
123	Midland Counties Public Service Corporation.	D	Fresno, San Luis Obispo, and Santa Maria Counties.			

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

CALIFORNIA—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from	Source of information.
49									Snow Mountain Water & Power Co.	Mc. P.
50	Forest	(2,250)				1,350	$0.10	$0.05		Mc. O. P.
51	Do	(2,800)				1,700				Mc. O. P.
52	Do	6,000				3,500				Mc. O. P.
53	Do	3,600				2,500				Mc. O. P.
54			9,000	9,000		6,750				Mc. O. P.
55			1,800	2,870		2,300				Mc. O.
56									Snow Mountain Water & Power Co.	Mc. O.
57					325	231				Mc. O. P.
58	Forest	11,850				6,000	.12	.06		Mc.O.M.P.
59	Do	(11,300)				6,750				Mc. O. P.
60	Do	8,800				6,000				Mc. O. P.
61									Southern Sierras Power Co.	Mc.
62									Pacific Light & Power Corporation.	Mc.
63	Forest	2,500				1,500				Mc. O. P.
64		3,330				2,000				Mc. O. P.
65			3,500	10,670		10,000				O. P.
66		21,000				15,000				Mc. O. M.
67		(10,000)				6,000				Mc. O. P.
68		(5,000)				3,000				Mc. O. P.
69	Forest	(2,000)				1,200				Mc. O. P.
70		(6,700)				4,000	.10	.05		Mc. O. P.
71	Forest	(2,500)				1,500				Mc. O. P.
72		12,000				6,650	.10	.05		Mc. O. P.
73		125	500	350		325	.15	.06		C.
74										P.
75			86	200		125				Mc.
76		2,600				1,000			Northern California Power Co. and Pacific Gas & Electric Co.	Mc. O. P.
77	Forest	3,400				2,000				Mc. O. P.
78			2,400	1,300		1,000	.065	.045		Mc. O. P.
79						1,000				O.Mc.M.P.
80						6,400				O. P.
81						14,200				O. P.
82						5,500				O. P.
83		152,080				13,000				O. P.
84						25,000				O. P.
85						20,000	.10	.05	Snow Mountain Water & Power Co.	O. P.
86						3,750			Great Western Power Co.	Mc. O. P.
87						800				Mc. O. P.
88			6,090			21,000				O. P.
89			4,932	104,870		5,000				O. P.
90			15,222			53,500				O. P.
91			(2,000)	(3,670)		2,200				O.
92			20,250	34,202		23,552				Mc. P. M.
93	Forest	(2,500)				1,500	.09	.04		Mc. O. M. P.
94	Do	47,000				35,000	.09	.04		O. P.
95	Do	47,000				35,000	.09	.04		O. P.
96	Do	(16,700)				10,000	.09	.04		Mc. O. P.
97		(250)				150				O. P.
98	Forest	(2,500)				1,500	.09	.04		Mc. O. P.
99			312	250	500	450				Mc. O. P.
100			21,744	60,000		45,000	.09	.04		Mc. O. P.
101		1,000				600	.09	.04		Mc. O. P.
102	Private	(1,000)				600				Mc. O. P.
103			3,000	4,250		2,250				Mc. O. P.
104				(a)		8,550				P. O.
105			600	500		875			Southern California Edison Co.	Mc. O. P.
106	Forest	(420)				250				O. P.
107		4,000				3,000			Nevada-California Power Co.	Mc. O. P.
108									Pacific Gas & Electric Co.	Mc.
109		50				30				Mc.
110					50	15				Mc.
111		175				100				Mc.
112										O.
113	Private	1,380				750			Southern California Edison Co.	Mc. O.
114			600	600		800				Mc. O.
115			(16,000)	(27,500)		16,550	.12	.06		O. P.
116			1,000	750		510				O. P.
117	Forest	(2,250)				1,370				O.
118	Do	24,400				16,000			Southern California Edison Co. and Mount Whitney Power & Electric Co.	O.
119	Do	3,500				2,000				O.
120			(180)	(300)		180				O. P.
121			(240)	(400)		240				O. P.
122	Forest	10,000				6,000				O.
123									San Joaquin Light and Power Corporation.	O.

[a] See No. 199.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY, **CALIFORNIA**—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant	Location.	Stream utilized.
124	Santa Catalina Island Co	GD	Avalon	Avalon		
125	Sierra City Electric Light Co	GD	Sierra City	Sierra City		
126	Snow Mountain Water & Power Co	GTD	Potter Valley and Ukiah	Potter Valley	T. 17 N., R. 11 W	South Fork Eel River.
127	Soulsbyville Electric Light Co	GD	Soulsbyville	Soulsbyville		
128	Southern California Edison Co	GTD	Los Angeles, Orange, San Bernardino, Santa Barbara, and Riverside Counties.	Kern River, No. 1	S. 29, T. 28 S., R. 30 E	Kern River
129	Do			Long Beach	Long Beach	
130	Do			Los Angeles, No. 3	Los Angeles	
131	Do			Lytle Creek	S. 6, T. 1 N., R. 5 W	Lytle Creek
132	Do			Mill Creek, No. 1	S. 14, T. 1 S., R. 2 W	Mill Creek
133	Do			Mill Creek, No. 2	S. 13, T. 1 S., R. 2 W	do
134	Do			Mill Creek, No. 3	do	do
135	Do			Redlands	Redlands	
136	Do			Santa Ana, No. 1	S. 26, T. 1 N., R. 2 W	Santa Ana River
137	Do			Santa Ana, No. 2	S. 34, T. 1 N., R. 2 W	do
138	Santa Barbara Gas & Electric Co	GTD		Santa Barbara	Santa Barbara	
	Southern Pacific Co	H				
139	Peninsula Railway Co	D	Campbell		Campbell	
140	South Coast Land Co	GD	Del Mar	Del Mar	Del Mar	
	Stone & Webster Mgt. Association	M				
141	Truckee River General Electric Co	GTD	West Central Nevada	Farad	S. 12, T. 18 N., R. 17 E	Truckee River
142	Surprise Valley Electric Light & Power Co	D	Cedarville		Cedarville	
143	Truckee Electric Light & Power Co	GD	Truckee	Truckee		
144	Tulare County Power Co	GTD	Tulare County	Tulare	Tulare	
145	Tuolumne County Electric Power & Light Co	D	Tuolumne County			
146	Tuolumne Electric Co	GD	Tuolumne and Mariposa Counties.	Tuolumne	S. 6, T. 1 S., R. 17 E	Clavey River
147	Tuolumne Trans. Co	D	Tuolumne County			
148	United Light, Fuel & Power Co	D	Coronado		Coronado	
	United Properties Co. of California	H				
149	Central Oakland Light & Power Co	GD	San Francisco	Second Street	Oakland	
150	Do	GD	Oakland and vicinity	Twelfth Street	do	
151	Consumers Light & Power Co	GD	do	Whitney Building	San Francisco	
152	Equitable Light & Power Co	GD		Phelan Building	do	
	Southside Light & Power Co	GD				
153	(Lessor, United Light & Power Co.)	L		Minna Street	do	
	United Light & Power Co. of California	GD				
154	(Lessor, San Francisco-Oakland & S. J. C. Ry. Co.)	L		Yerba Buena	Oakland	
	United Railways Investment Co	H				
155	Coast Valleys Gas & Electric Co	GTD	Monterey County	Monterey	Monterey	
156	Sierra & San Francisco Power Co	GTD	Calaveras, Contra Costa, Monterey, San Francisco, San Joaquin, Stanislaus, and Tuolumne Counties.	Knights Ferry	S. 29, T. 1 S., R. 12 E	Stanislaus River
157	Do		do	North Beach	San Francisco	
158	Do		do	Phoenix	S. 16, T. 2 N., R. 15 E	South Fork Stanislaus River.
159	Do		do	Stanislaus	S. 6, T. 3 N., R. 15 E	North Fork Stanislaus River.
160	Universal Electric & Gas Co	GD	San Francisco County	San Francisco	San Francisco	
161	Utica Gold Mg. & Hobart Est. Co	GD	Angels and vicinity	Utica	S. 33, T. 4 N., R. 14 E	North Fork Stanislaus River.
162	Vacaville Water & Light Co	D	Vacaville		Vacaville	
163	Vallejo Electric Light & Power Co	D	Vallejo		Vallejo	
164	Weaverville Electric Co	GD	Weaverville	Weaverville		
	Western Power Co	H				
165	City Electric Co	GD		San Francisco		
166	Great Western Power Co	GTD	Sacramento, Brightstown	Butt Creek		Butt Creek
167	Do		Oakland and vicinity	Las Plumas		North Fork Feather River.
168	(Lessor, California Electric Generating Co.)	L		Oakland	Oakland	
169	West Sacramento Electric Co	D	Broderick			
170	West Side Lumber Co	GTD	Tuolumne	Tuolumne		
171	Yosemite Power Co	GTD	Stanislaus County	La Grange	S. 20, T. 3 S., R. 14 E	Tuolumne River
172	Yosemite Valley Light & Power Plant	GD	Yosemite Valley	Yosemite		Merced River

B.—MUNICIPAL PLANTS.

173		GD	Alameda	Alameda	Alameda	
174		GD	Anaheim	Anaheim	Anaheim	
175		D	Azusa	Azusa	Azusa	
176		D	Biggs	Biggs	Biggs	
177		D	Burbank	Burbank	Burbank	
178		D	Glendale	Glendale	Glendale	
179		D	Gridley	Gridley	Gridley	
180		D	Lodi	Lodi	Lodi	
181	City of Los Angeles	GD	Los Angeles	Cottonwood	S. 23, T. 17 S., R. 36 E	Cottonwood Creek
182	Do		do	Division Creek, No. 1	S. 33, T. 11 S., R. 34 E	Division Creek
183	Do		do	Division Creek, No. 2	S. 5, T. 12 S., R. 34 E	do
184	Do		do	San Francisquito, No. 1		Clear Creek

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

CALIFORNIA—Cantinued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from	Source of information.
124			500	600		320				Mc. O.
125		10				375				Mc.
126		10,000				6,500			Pacific Gas & Electric Co.	Mc. O. C. P.
127		50				30				Mc.
128	Forest	43,000				28,000				O. P.
129			19,240	62,670		47,000				Mc. O. P.
130			9,250	13,300		10,000				O. P.
131	Forest	1,100				500			Pacific Electric Railway Co.; Ontario Power Co.; Pacific Power & Light Corporation; Los Angeles Gas & Electric Co.	O. P.
132		(1,250)				750				O. P.
133	Forest	350				250	$0.10	$0.07		O. P.
134	Do	3,900				3,000				O. P.
135			(600)	(1,000)		600				O. P.
136	Forest	(5,000)				3,000				O. P.
137	Do	1,800				1,000				O. P.
138			1,070	2,150		2,120				Mc. O.
139									Pacific Gas & Electric Co.	Mc.
140			275	250		120				Mc.
141		2,400				1,500				O. P.
142									Alturas Electric Light & Power Co.	Mc.
143		240				150				Mc.
144			1,200	3,000		1,500				Mc. O.
145									Sierra & San Francisco Power Co.	Mc.
146	Forest	(1,000)				600				O.
147									Tuolumne Electric Co.	O.
148									San Diego Electric Railway Co	Mc.
149			1,488	(3,330)		2,000				Mc. P. M.
150			240	(125)		75				Mc. P. M.
151			880	(1,200)		725				Mc. P. M.
152			1,000	(2,500)		1,500				Mc. P. M.
153			1,000	(1,670)		1,000				Mc. M. P.
154			5,500	(12,200)		7,350				Mc. M. P.
155			1,500	1,330		1,000			Sierra & San Francisco Power Co.	Mc. O. M. P.
156		(2,500)				1,500			Yosemite Power Co	O.
157			7,600	24,000		18,000				Mc.
158	Forest	(3,100)				1,875			Pacific Gas & Electric Co.	O.
159	Do	60,000				34,000			City Electric Co.	O. C.
160		(1,650)	(2,240)	(2,460)		2,240				P.
161	Forest	(2,500)				1,500	.10	84.00		O.
162									Pacific Gas & Electric Co.	Mc. O.
163										
164	Forest	60				50			do	Mc. O.
165			7,200	24,670		21,000				Mc. O.
166	Forest	(1,330)				800				Mc. O.
167		72,000				52,500				Mc. O.
168			(10,500)	14,000		10,500	.09	.08		Mc. O. P.
169									Pacific Gas & Electric Co.	O.
170			(650)	900		650	.09	.05	Sierra & San Francisco Power Co.	C. Mc.
171		1,650				900				Mc. O. P.
172		260				150				C.
	Total, A	676,425	196,618	461,917	2,055	778,332				

B.—MUNICIPAL PLANTS.

173			1,740	2,750		3,000				Mc. O.
174			375	450		310				Mc.
175									Pacific Light & Power Corporation.	Mc.
176									Pacific Gas & Electric Co.	Mc.
177										Mc.
178										Mc.
179									Pacific Gas & Electric Co.	Mc. P.
180									Western States Gas & Electric Co.	Mc. P.
181	Forest	(2,500)				1,500				O.
182	Do	(200)				120				O.
183	Do	(1,000)				600				O.
184		42,000				28,000				O. Mc.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

CALIFORNIA—Continued.

B—MUNICIPAL PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
185		GD	Palo Alto	Palo Alto	Palo Alto	
186		GD	Pasadena	Pasadena	Pasadena	
187		D	Potter Valley	Potter Valley	Potter Valley	
188		D	Santa Clara	Santa Clara	Santa Clara	
189		D	Ukiah	Ukiah	Ukiah	
190		D	Santa Cruz	Santa Cruz	Santa Cruz	

C.—ALL OTHER PLANTS.

191	California State Cable R. R. Co	G	Electric railway	San Francisco	San Francisco	
192	Humboldt Transit Co	G	do	Humboldt Bay	Humboldt Bay	
193	Los Angeles & San Diego Beach Ry. Co	G	do	San Diego	San Diego	
194	Monterey & Pacific Grove Ry. Co	G	do	Monterey	Monterey	
195	Northwestern Pacific R. R. Co	G	do	Alto	Alto	
196	Santa Barbara & Suburban Ry. Co	G	do	Santa Barbara		
	Spreckels, J. D. & A. B., Securities Co	H				
197	San Diego Electric Railway Co	G	do	San Diego	San Diego	
198	Southern Pacific Co	HG	do			
199	Pacific Electric Ry. Co	G	do	(Riverside)	(Riverside)	
	United Properties Co. of California	H				
200	San Francisco-Oakland Terminal Rys	G	do	Emeryville	Emeryville	

COLORADO.

A.—PUBLIC UTILITY PLANTS.

1	Aguilar Light & Power Co	D	Aguilar			
2	Black Hills & Denver Gold Mining Co			Jenny Creek	S. 30, T. 1 S., R. 73 W., 6 P. M.	
3	Boston & Colorado Power & Water Co., The	GD	Idaho Springs and Empire	Idaho Springs		
4	Brighton Light & Power Co	D	Brighton			
5	Brush Light & Power Co	GD	Brush	Brush	Brush	
6	Buena Vista Electric Light & Power Co	GD	Buena Vista	Buena Vista	T. 14 S., R. 78 W., 6 P. M.	Arkansas River
	Byllesby, H. M., & Co	M				
7	Arkansas Valley Railway, Light & Power Co	GTD	Florence and Altman	Canon City	Canon City	
8	Do	GTD	Pueblo, Anaconda, Canon City.	Pueblo	Pueblo	
9	Do	GTD	La Junta, Cripple Creek, Goldfield, Fowler.	La Junta	La Junta	
10	Do	GTD	Rocky Ford and Ordway	Rocky Ford	Rocky Ford	
11	Do	GTD		Skaguay	S. 30, T. 17 S., R. 68 W., 6 P. M.	Beaver
12	Carbondale Light & Power Co	D	Carbondale	Carbondale		
13	Colorado Consolidated Mining & Electric Co	GD	Breckenridge	Breckenridge		
14	Colorado Power Co., The	GTD	Leadville, Denver	Middle Boulder Creek	S. 34, T. 1 N., R. 71 W., 6 P. M.	Middle Boulder Creek
15	Do	GTD	Boulder, Georgetown	Shoshone	S. 35, T. 5 S., R. 88 W., 6 P. M.	Grand
16	Do	GTD	Salida, Monarch, and Garfield.	Fuses	S. 32, T. 50 N., R. 7 E., N. M. M.	Fuses
17	Do			Salida	S. 30, T. 50 N., R. 7 E., N. M. M.	South Fork Arkansas
18	Do			Leadville	Leadville	
19	Do			Salida	Salida	
20	Do			Glenwood Springs	Glenwood Springs	
21	Colorado Yule Marble Co			Crystal River	T. 11 S., R. 88 W., 6 P. M.	Crystal, Yule and Lost Trail.
22	Conejos Cooperative R. M. & Manufacturing Co	GD	Conejos and Antonito	Conejos		
23	Continental Mines Power & Red. Co	GD		Fall River	Lombard	Fall River
24	Coryell Mine Leasing Co	GD	New Castle	New Castle	New Castle	
25	Crested Butte Light & Water Co	GD	Crested Butte	Crested Butte		Coal
	Doherty Operating Co	M				
26	Denver Gas & Electric Light Co	GTD	Denver, Edgewater, Englewood, Aurora, Arvada, and Montezuma.	Denver	Denver	
27	Summit County Power Co	GD	Dillon, Argentine, Breckenridge.	Dillon	T. 5 S., R. 77 W., 6 P. M.	Snake and Straight
28	Empire Water & Power Co	GD		Colorado Springs	S. 17, T. 13 S., R. 68 W., 6 P. M.	Crystal
29	Erie Electric Light Co	D	Erie			
30	Estes Park Electric Light & Power Co	GD	Estes Park	Estes Park	T. 5 N., R. 73 W., 6 P. M.	Fall
31	Excelsior M. & M. Co	GD	Frisco	Frisco	Frisco	
32	Farmers Electric & Power Co	D	Eaton, Ault, Pierce, and Lucerne.			

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

CALIFORNIA—Continued.

B.—MUNICIPAL PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
185			700	800		485				Mc.
186			1,500	8,000		6,300				Mc. O.
187									Snow Mountain Water & Power Co.	Mc.
188									Pacific Gas & Electric Co.	Mc.
189									Snow Mountain Water & Power Co.	Mc.
190										Mc.
	Total, B	45,700	4,315	12,000		40,315				

C.—ALL OTHER PLANTS.

191			650	500		(300)				M. Mc.
192			280	650		400				M. Mc.
193					60	140				Mc.
194			(1,000)	1,330		1,000				Mc.
195			2,100	3,250		4,700				Mc.
196			(700)	250		720			Santa Barbara Gas & Electric Co.	Mc.
197			2,860	6,800		8,200				Mc.
198			7,740	20,000		15,000				Mc.
199			8,500	28,170		14,850				Mc. M.
200			8,950	12,000		10,550				M. Mc.
	Total, C		32,780	72,950	60	55,860				
	Grand total	722,125	233,713	546,867	2,115	874,507				

COLORADO.

A.—PUBLIC UTILITY PLANTS.

1									Trin. El., Tr., Ry. & G. Co.	Mc.
2										O.
3	Private	700	925	600		1,100	$0.10 -$0.07	$0.04–$0.01		Mc. O.
4							.125– .10	.05– .04	Western Light & Power Co.	O.
5	Private		160	225		158	.15			C. Mc.
6		125			120	80	.12			Mc. O. SE.
7	Private		2,932	5,450		4,900				C. Mc.
8	Do		4,635	6,124		5,555	.11– .03	.06– .01		C. Mc.
9	Do		175	240		150				C. Mc.
10	Do		150	80		60				Mc.
11	Do	2,400				1,500	.12	.07		C. Mc. O. S. E.
12							.15	.15	Colorado Power Co.	O.
13		150	150	150		640				Mc.
14	Forest	21,000				10,000				C. M. Mc. O. SE.
15	Do	18,000				10,000				C. Mc. O. SE.
16	Do	750				600				C. M. O.
17		2,000	900	920		600				C. Mc.
18			(2,000)	2,500		1,925				C. M. Mc.
19			(1,000)	1,200		700				C. M. O.
20			140	250		50				C. Mc.
21	Forest	1,800	414	670		1,920	.15			C. O. SE.
22	Private	75	150	218		100	.20	.10		Mc.
23		720				450				Mc. O.
24			300	133		100				Mc.
25	Private	75	80	67		55	.15			C. Mc.
26			13,320	24,650		15,350			Colorado Power Co.	C. M. Mc.
27	Forest	1,600	800	1,600		1,650				M. Mc. O
28			200	(250)		150				C.
29							.075	.05	Western Light & Power Co.	O.
30		1,350				250				Mc. O. SE.
31			(150)	150		125				C.
32									Western Light & Power Co.	C. Mc.

TABLE 55.—STATISTICS OF POWER DEVELOPMENT, PUBLIC UTILITY,

COLORADO—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
	Federal Light & Traction Co	H				
33	Trinidad Electric Transmission Ry. & Gas Co.			Hastings		
34	Do	GTD	Trinidad, Aquitar, and Walsenburg.	Walsen		
35	Do			Trinidad	Trinidad	
36	Frazier River Timber Co	GD	Frazier	Frazier	Frazier	
37	Glenwood Light & Water Co	GD	Glenwood Springs and Cardiff.	Grizzly Creek	T. 5 S., R. 88 W., 6 P. M.	
38	Gilpin Light, Heat & Power Co	D	Central City and Russell			
39	Golden Illuminating Co	D	Golden			
	GrandJunction & Grand River Valley Ry. Co	H				
40	Grand Junction Electric, Gas & Manufacturing Co.	GD	Grand Junction	Grand Junction	Grand Junction	
41	Hayden Concrete, Gas & Electric Co	GD	Hayden	Hayden	Hayden	
	Hendrie and Bolthoff Manufacturing & Supply Co.	H				
42	Oak Creek Service Company	GD	Oak Creek	Oak Creek	Oak Creek	
43	Ordway Electric Light & Power Co	D	Ordway and Sugar City			
44	Palisades Service Co	GD	Palisades	Palisades	Palisades	
45	Hinsdale Manufacturing & Development Co	GD	Lake City	Lake City	T. 44 N., R. 4 W., N. M. M.	Gunnison
46	Home Gas & Electric Co	D	Greeley, Evans, and La Salle.			
47	Hotchkiss Packing & Power Co	GD	Hotchkiss	Hotchkiss	Hotchkiss	
48	Intermountain Railway, Light & Power Co	GTD	Lamar	Lamar	Lamar	
49	Do	GTD	Las Animas and vicinity	Las Animas	Las Animas	
50	Kemp, J. H			Mid. Boulder Creek	S. 20, T. 1 S., R. 73 W., 6 P. M.	Mid. Boulder
51	La Jara Electric & Creamery Co	GTD	La Jara and Richfield	La Jara	La Jara	
52	La Veta Light, Heat & Power Co	GD	La Veta	La Veta		Cucharas
53	Lieber, John, Electric Light Plant	GD	Hugo	Hugo	Hugo	
54	Meeker Light, Heat & Power Co	GD	Meeker	Meeker	Meeker	White River
55	Monte Vista Light, Heat & Power Co	GD	Monte Vista	Monte Vista	Monte Vista	
56	Montezuma Electric Co	GD	Mancos	Mancos	Mancos	
57	Moore Light & Power Co	GD	Pagosa Springs	Pagosa Springs		
58	Muncie Property Investing Co	H				
59	Fort Lupton Light & Power Co	D	Fort Lupton and vicinity			
	Arvada Electric Co	D	Arvada, Griffith, and Ralston.			
60	Arapahoe Electric Light & Power Co	D	Littleton, Petersburg, Englewood, Logue, Sheridan.			
61	Mutual Electric Light & Power Co	GD	Alamosa	Alamosa	Alamosa	
62	Redlands Irrigating & Power Co	GD	Grand Junction	Grand Junction	T. 1 S., R. 1 W., Ute P. M.	Grand
63	Rico Mining Co	GD	Rico	Rico	T. 40 N., R. 11 W., N. M. M.	Dolores
64	Rifle Light, Heat & Power Co	GD	Rifle	Rifle	S. 9, T. 65 S., R. 93 W., 6 P. M.	Rifle Creek
65	Roaring Fork Electric Light & Power Co., The	GD	Appen	Castle Creek	T. 10 S., R. 84 W., 6 P. M.	Maroon Castle and Hunter.
66	Roberts, J. G				S. 36, T. 3 S., R. 73 W., 6 P. M.	
67	Shumm Light & Power Co	GD		Gypsum	S. 4, T. 6 S., R. 85 W., 6 P. M.	Gypsum.
68	Steamboat Service Co	GD	Steamboat Springs	Steamboat Springs	Steamboat Springs	
69	Sterling Consolidated Electric Co	GD	Sterling	Sterling	Sterling	
	United Gas & Electric Corporation of Connecticut.	H				
70	Colorado Springs Light, Heat & Power Co	GTD	Colorado Springs, Colorado City, Ramona, and Manitou.	Pikes Peak	S. 6, T. 14 S., R. 67 W., 6 P. M.	Colorado Springs
71	Do	GTD	do	Colorado Springs	Colorado Springs	
72	Citizens Light, Heat & Power Co	D	Colorado Springs			
	United Hydro-Electric Co	H				
73	Green & Clear Lakes Co	GTD	Georgetown and vicinity	Georgetown	T. 5 S., R. 74 W., 6 P. M.	South Clear
	Utah Securities Corporation:					
74	Western Colorado Power Co	GTD	Southwestern Colorado	Ames (new)	T. 42 N., R. 10 W., N. M. M.	San Miguel
75	Do	GTD	do	Ames (old)		do
76	Do	GTD	do	Illium	T. 42 N., R. 9 W., N. M. M.	do
77	Do	GTD	do	Rockwood	T. 38 N., R. 8 W., N. M. M.	Cascades and Elbert
78	Do	GTD	do	Ouray	T. 44 N., R. 7 W., N. M. M.	Uncompahgre
79	Do	GTD	do	Delta	Delta	
80	Do	GTD	do	Montrose	Montrose	
81	Do	GTD	do	Durango	Durango	
82	Ouray Electric Light & Power Co	GD	Ouray	Ouray	Ouray	
83	Western Light & Power Co	GD	Northern Colorado	Lafayette	Lafayette	

B.—MUNICIPAL PLANTS.

84		GD	Del Norte	Del Norte	Del Norte	
85		GD	Fort Morgan	Fort Morgan	Fort Morgan	
86		GD	Gunnison	Gunnison	Gunnison	
87		GD	Holly	Holly	Holly	
88		GD	Holyoke	Holyoke	Holyoke	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

COLORADO—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
33	Private		6,800	10,670		2,025				M. Mc. O
34	Do					4,000				M. Mc. O
35	Do					4,300	$0.125–$0.05	$0.04–$0.015		M. Mc. O
36			100	40		25				Mc.
37	Forest	450				200			The Colorado Power Co.	Mc. O.
38							.16		United Hy. Electric Co.	C. M. Mc.
39									Denver Gas & Electric Light Co.	C. Mc.
40	Private		1,360	1,180		950	.125– .06	.10– .14	The Redlands Irrigating & Power Co.	C. M. Mc.
41			50	48		30				Mc.
42			80	80		50	.10			C. Mc
43	Private						.12	.08– .03	Arkansas Valley Railway, Light & Power Co.	C. Mc.
44			200	300		175	.125			C. Mc.
45		90				150				Mc. O. SE.
46									Western Light & Power Co.	Mc. O. SE.
47	Private		100	85		50	.15			Mc. O.
48	Do		300	375		335				Mc
49	Do		300	235		175				Mc.
50										O.
51	Private		30	50		30	.15			Mc
52	Do	40	50	50		40	.125			C. Mc.
53					10	7½				Mc.
54	Private	145	200	125		150	.16– .08	.04– .02		C.
55			300	233		200				C. Mc.
56			130	75		55				Mc.
57		300				100				Mc.
58									Western Light & Power Co.	C. M. Mc.
59							.15		Denver Gas & Electric Light Co.	C. M. Mc.
60							.12		do	C. M. Mc.
61			400	650		415				M. Mc.
62		1,800				900	.125			Mc. O. SE.
63	Forest	300	350	250		165				Mc. O.
64	Private	200				150	.12– .06	.06–$0.015		C. Mc. O. SE.
65	Forest	3,600				2,000	.10	[a] 37.50		C. Mc. O. SE.
66										O.
67	Forest	175				75				C. Mc. O.
68	Private		250	200		150	.15– .10			C. Mc.
69			700	400		225				Mc.
70	Forest	4,750				2,250				C. M. O. SE.
71			4,382	6,460		4,700				M. Mc.
72									Colorado Springs Light, Heat & Power Co.	C. Mc.
73	Forest	1,700	844	1,120		1,300	.105		Colorado Power Co.	C. M. Mc. O.
74	Do	6,160				3,600				M. Mc. O. SE.
75		1,870				1,200				Mc.
76	Forest	1,600				1,200				M. Mc. O. SE.
77	Do	8,000				4,500				M. Mc. O. SE.
78	Do	1,000				450				M. Mc. O.
79			170	150		150				M. Mc.
80			450	510		300				M. Mc.
81			400	820		450				M. Mc. O
82			125	100		(60)				
83			4,200	10,670		8,000				Mc.
	Total, A	82,925	50,852	80,353	130	103,455				

B.—MUNICIPAL PLANTS.

84	Private	125	160		50	$0.175		Mc O.
85		587	435		475	$0.12– .05		Mc. O.
86		375	375		225			C. M. C.
87	Private	200	165		150	.15– .09		Mc. O.
88	Do	150	90		42	.125		C. Mc

[a] Horsepower year.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

COLORADO—Continued.

B.—MUNICIPAL PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
89		GD	Hugo	Hugo	Hugo	
90		GD	Julesburg	Julesburg		
91		GD	Longmont	Longmont	T. 3 N., R. 69 W., 6 P. M.	North St. Vrain
92		GD	Paonia	Paonia	Paonia	
93		GD	Silverton	Silverton	Silverton	

C.—ALL OTHER PLANTS.

	American Smelting & Refining Co	H				
94	Garfield Smelting Co	Mg	Mining		T. 40 N., R. 7 W., N. M. M.	Las Animas and Arasha.
95	Brant Independent Mining Co	Mg	do	Pitkin	Pitkin	Swartz
96	Colorado Fuel & Iron Co., The		Manufacturing	Pueblo	Pueblo	
97	Colorado Metals & Chemical Co	Mg		Bailey Mine	T. 1 S., R. 73 W., 6 P. M.	North Boulder Creek
98	Colorado Springs & Interurban Ry. Co		Electric railway	Colorado Springs	Colorado Springs	
99	Continental Mines Power & Reduction Co	Mg	Mining			
100	Creede Triune Mines Co		do	Creede	Creede	
101	Crystal River Marble Co	Mg	Milling	Yule Creek	T. 12 S., R. 87 W., 6 P. M.	Yule
102	Cuchara Lumber & Supply Co				T. 31 S., R. 69 W., 6 P. M.	Cuchara
	Curtz Consolidated Mines Co	H				
103	Morning Star Mining Co	Mg	Mining		T. 42 N., R. 10 W., N. M. M.	Bills
	Denver & Northwestern Railway Co., The	H				
104	Denver Tramway Co		Electric railway	Denver	Denver	
105	Denver & Rio Grande Railway Co			Pagosa Springs	Pagosa Springs	
106	Dixon Mill	Mg	Milling	Dixon Mill	T. 2 N., R. 69 W., 6 P. M.	St. Vrain
107	Eagle Mining & Milling Co	Mg	Mining		S. 13, T. 6 S., R. 81 W., 6 P. M.	Fall
108	East Lake Mining & Milling Co	Mg	do		T. 6 S., R. 82 W., 6 P. M.	East Lake
109	Fall River Power Co	Mg	do		T. 3 S., R. 73 W., 6 P. M.	Fall
110	Fort Collins Mill & Elevator Co	Mlg	Milling		T. 7 N., R. 69 W., 6 P. M.	Cache and La Poudre
111	Grand Valley Irrigating District	Irr	Irrigation	Morris Pump Station	T. 6 S., R. 94 W., 6 P. M.	
112	Highland Power Co			Eldora		
113	Hoffman Milling Co	Mlg	Milling		T. 7 N., R. 61 W., 6 P. M.	Cache and La Poudre
114	Indiana-Colorado Mining & Milling Co	Mg	Mining		T. 44 N., R. 5 W., N. M. M.	Nellie
115	Kamm, J. F	Mlg	Sawmill		T. 4 S., R. 90 W., 6 P. M.	East Elk
116	Lower Platte & Beaver Ditch Co	Irr	Irrigation		T. 4 N., R. 55 W., 6 P. M.	Platte
117	Manhattan Mining & Milling Co	Mg	Mining		T. 11 S., R. 81 W., 6 P. M.	Willis
118	Marion Mines & Mills Co	Mg	do	Fairview		
119	Moffat Coal Co				S. 30–31, T. 4 S., R. 85 W.	
120	Montrose Flour Milling Co		Flour mill	Montrose	Montrose	
121	National Sugar Manufacturing Co		Sugar factory	Sugar City	Sugar City	
	Nevada Wonder Mining Co	H				
122	Hidden Treasure Mining Co	Mg	Mining and milling	Henson Creek	T. 23 S., R. 5 W., N. M. M.	Henson Creek
123	Orchard Mesa Irrigating District	Irr	Irrigation		T. 1 S., R. 2 E., Ute P. M.	
124	Peerless Flour Mills	Mlg	Flour mills	Canon City	Canon City	
125	Prince Arthur Mining & Milling Co	Mg	Milling	Left Hand	T. 1 N., R. 72 W., 6 P. M.	Left Hand Creek
126	Do		do	Prussian Mill	do	do
127	Ramsay, Hugh B	Mlg	Sawmill		S. 20, T. 7 N., R. 73 W., 6 P. M.	Cascade
128	Ridge Mexico Mining Co	Mg	Mining	Ridge Mill	S. 18, T. 42 N., R. 1 E., N. M. M.	
129	San Luis Flour Mill	Mlg	Flour mill	San Luis	San Luis	
130	Sloss, S. P			Sloss	Sloss	
131	Steamboat Milling Co	Mlg	Milling		T. 6 N., R. 84 W., 6 P. M.	Yampa
132	Tam O'Shanter-Montezuma Mining & Development Co.	Mg	Mining		T. 12 S., R. 85 W., 6 P. M.	Montezuma
133	Thistle, M. L				S. 11, T. 43 N., R. 8 W., N. M. M.	Canon
134	Tin Cup Gold Dredging Co	Mg	Mining	St. Elmo	T. 15 S., R. 80 W., 6 P. M.	Chalk
135	Two American Sisters Mining Co	Mg	do	South Fork Clear Creek	T. 4 S., R. 74 W., 6 P. M.	South Fork Clear Creek
136	United Colorado Mines Co	Mg	do	Dorchester	T. 12 S., R. 83 W., 6 P. M.	Tellurium
137	United States Gold Corporation	Mg	do	Livingstone Mine	T. 1 N., R. 72 W., 6 P. M.	
138	White Diamond Mill	Mlg	Milling		T. 2 N., R. 72 W., 6 P. M.	Jim Creek
139	White Raven Mine	Mlg	Mining		T. 1 N., R. 72 W., 6 P. M.	Left Hand Creek
140	Wolf Tongue Mining Co	Mlg	Milling	Middle Boulder Creek	do	Middle Boulder Creek
141	Wray Flour Mill		do	Wray	Wray	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

COLORADO—Continued.

B.—MUNICIPAL PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
89			(200)	200		145				C.
90		175	200	300		225	$0.11-$5.05			M.
91		800	375	300		500				C. Mc. S.
92			200	300		175				C. M.
93			450	450		330				M.
	Total, B	975	2,862	2,775		2,317				

C.—ALL OTHER PLANTS.

94				800		600				C.
95		330				300				C.
96						3,075				C.
97										O. SE.
98	Private		1,400	2,700		1,825				C. M. Mc.
99	Forest	720								O.
100			(200)	(330)		200				C.
101		425				300				O.
102	Forest	50								O. SE.
103	Do	125				Water plant				C. O.
104	Private		9,613	13,800		9,500			Colorado Power Co.	C. M.
105			(40)	60		40				C.
106		30				100				O. SE.
107	Forest	125	300	100						C. O.
108	Do	40								O.
109	Do	(1,000)				600				C. O.
110		149		100		Water plant				C. O. SE.
111		280				Water plant				O. SE.
112		70				65				C. Mc.
113		46		40						O. SE.
114	Forest	250								O.
115	Do	30				Water plant				C. O.
116		60				Water plant				O. SE.
117	Forest	50				50				C. O.
118	do	300				270				Mc.
119			350	385		350				O.
120	Private	50							Clark & Holet Mill Co.	C.
121			2,700	465		61			Ordway Light & Power Co.	C.
122		321				120				O. SE.
123		2,250				Water plant				O. SE.
124		100								C.
125		100				Water plant				O. SE.
126		125				Water plant				O. SE.
127	Forest	18								O. C.
128	Do	(100)				Water plant				O.
129		54							Colm & Salagar	C.
130						3				C.
131	Government	25				Water plant				C. O. SE.
132	Forest	140								C. O.
133	Do	125				175				C. O.
134	Do	335				200				C. O.
135										O.
136	Forest	300								O.
137										S. E. O.
138		70				Water plant				O. SE.
139		50				Water plant				O. SE.
140		100				100				O. SE. SE.
141		60								C.
	Total, C	8,403	14,603	18,780		17,937				
	Grand total	92,303	68,317	101,908	130	123,709				

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

CONNECTICUT.

A.—PUBLIC UTILITY PLANTS.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
	Atlantic Power & Light Corporation	H				
1	Seymour Electric Light Co	D	Seymour	Seymour		
2	United Electric Light & Water Co	D	Waterbury and vicinity	Waterbury		
3	Baltic Mills Co	GD	Baltic and Sprague	Baltic	Baltic	Shetucket River
4	Beacon Falls Rubber Shoe Co	GD		Beacon Falls		
5	Clinton Electric Light & Power Co			Clinton		
6	Colchester Electric Light Co	GD	Colchester	Colchester	Colchester	
7	Danbury & Bethel Street Ry. Co	GD		Danbury	Danbury	
8	Danielson & Plainfield Gas & Electric Co	GD	Danielson, Plainfield, and vicinity.	Plainfield	Plainfield	
9	Derby Gas Co	GD	Derby, Ansonia, and Shelton.	Derby		
	Doherty Operating Co	M				
10	Danbury & Bethel Gas & Electric Light Co	GD	Danbury and Bethel	Danbury	Danbury	
11	East Haddam Electric Light Co., The	GD	Haddam, Hampton, and vicinity.	Leesville		Salmon River
12	Essex Light & Power Co	D		Essex		
13	Hartford Electric Light Co., The	GTD	Hartford, Rocky Hill, Tariffville, Windsor, and Weathersford.	Dutch Point	Dutch Point	
14	Do		do	Tariffville	Granby	Farmington River
15	(Lessor, Farmington River Power Co.)	L		Poquonock	Poquonock	do
16	House, H. A., Light Plant	GD	Long Hill	Long Hill		
17	Litchfield Electric Light & Power Co	GD	Litchfield, Bantam, and Washington.	Litchfield		
18	Lyme Electric Power Co	D	Lyme and vicinity	Lyme		
19	Meriden Electric Light Co	GD	Meriden	Meriden	Meriden	
20	New Milford Electric Light Co	D	New Milford	New Milford		
	New York, New Haven & Hartford R. R. Co	H				
21	Housatonic Power Co	GTD	Waterbury, Norwalk, Branford, New Britain, Greenwich, New Milford, and vicinity.	Branford	Branford	
22	Do			Bulls Bridge	New Milford	Housatonic River
23	Do			South Norwalk		
24	Do			Waterbury		
25	United Electric Light & Water Co	D				
26	Westport Water Co	GD		Westport	Westport	Saugatuck River
27	Northern Connecticut Light & Power Co	GD	Windsor Locks and vicinity	Windsor Locks	Windsor Locks	Connecticut River
28	Ousatonic Water Power Co		Derby	Derby		Housatonic River
29	Do		Shelton	Shelton		do
30	Ponemah Mills			Ponemah Mills	Norwich	Shetucket River
31	Peoples Light & Power Co			Danielson		
32	Putnam Light & Power Co	GD	Putnam and vicinity	Putnam		
33	Ridgefield Electric Co., The	GD	Ridgefield	Ridgefield	Ridgefield	
34	Rockville-Willimantic Lighting Co	GD	Rockville, Coventry, Stafford Springs, Crystal Lake, Lebanon, Tolland, Mansfield, and Windham.	Rockville	Rockville	
35	Do			Stafford Springs		
36	Do			Willimantic		
37	Shore Line Electric Ry. Co	GD		Saybrook	Saybrook	
38	Do			Thamesville	Thamesville	
39	Simsbury Electric Co	D	Simsbury	Simsbury		
40	South Manchester Light, Power & Tramway Co	D	Manchester	Manchester		
41	Stamford Gas & Electric Co	GD	Stamford, Darien, Glenbrook, and vicinity.	Stamford	Stamford	
	Stone & Webster, Mgt. Association	M				
42	Connecticut Power Co	GTD	Northwestern	Canaan	North Canaan	Housatonic River
43	Do		Connecticut	Falls Village	Canaan	do
44	Do			Middletown	Middletown	
45	Do			New London		
46	(Lessor, Thomaston Electric Light Co.)	L		Thomaston		
	Tenney, C. H., & Co	M				
47	Bristol & Plainville Tramway Co	GTD	Bristol and vicinity	Bristol	Bristol	
48	Torrington Electric Light Co	GD	Torrington	Torrington	Torrington	
49	Totokett Manufacturing Co	GD	Versailles	Versailles	Norwich	Shetucket River
50	Uncas Power Co., The	GTD	Norwich	Scotland	Scotland	do
51	Union Electric Light & Power Co., The	GD	Hartford County	Unionville	Unionville	Farmington River
52	United Illuminating Co	GD	Bridgeport, Stratford, Fairfield, Milford, New Haven, Orange, and vicinity.	Bridgeport	Bridgeport	
53	Do			New Haven	New Haven	
	Westerly Light & Power Co	HGTD				
54	Mystic Power Co	D	Mystic, Noank, and Stonington.	Mystic		
55	Winsted Gas Co	GD		Winsted		
56	Woodbury Electric Co	GD	Woodbury	Woodbury		

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

CONNECTICUT.

A.—PUBLIC UTILITY PLANTS.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
1									United Electric Light & Water Co.	Mc. P.
2									Housatonic Power Co.	Mc.
3	Private	2,300	1,000	850		300				Mc. P.
4						155	$0.15			Mc. P.
5										P.
6			100	75	60	75				Mc. P.
7			1,100	1,720		750				M. Mc.
8			(600)	800		600				Mc. P.
9		1,000	1,800	3,567		2,850				Mc.O.M.P.
10			1,300	2,733		2,050				M.
11	Private	200				175			Hartford Electric Light Co.	Mc. P. C.
12									Shore Line Electric Ry. Co.	P.
13			8,300	20,670		15,500	.09	$0.045		M. Mc.
14		2,000				1,500				M. O. Mc. P. C.
15		1,600				1,200				M. O. Mc. P. C.
16						10				Mc.
17		800	1,000	900		900				Mc. P.
18							.14		Connecticut Power Co.	P. C.
19			1,900	5,550		3,650				Mc.
20									Housatonic Power Co.	M. Mc.
21			700	775		485				Mc. P.
22		8,000				7,500	.015	.015		Mc. M. C.
23						1,000				P.
24						10,000				P.
25									Housatonic Power Co.	Mc.
26	Private	50	100	100		150	$0.12 – .085	$0.10 – .025	do.	Mc. M. C.
27	Do	200	450	750		655	.125– .09	.09 – .02	Amherst Power Co.	Mc. O. M. P. C.
28		3,400								M. O.
29										
30	Private	2,500	3,375	3,304	15	1,882	.10			O. C.
31			(250)	(450)		270				P.
32		600	1,275	1,285		1,000				Mc. P.
33			250	375		275				Mc. P.
34			300	250		150			Uncas Power Co.	Mc. P.
35		125	150	125		75				Mc. M. P.
36			550	870		650				Mc. P.
37			1,950	5,780		5,000				M. Mc.
38			1,190	1,000		1,635				Mc.
39									Hartford Electric Light Co.	Mc. P.
40							.117– .09	.058– .036	do.	C. P.
41			2,172	6,080		4,500	.12 – .09			M. Mc. P.
42	Private	1,000	400	400		600	.17 – .12	.055– .02		M. Mc. O. P. C.
43	Do	15,000				9,000		.02 – .01		
44			1,600	3,330		2,250				Mc. M. O. C. P.
45			1,700	2,650		2,295				P.
46			250	125		100				Mc. P.
47			1,500	1,500		1,500			Connecticut Power Co.	Mc.
48			2,000	2,000		1,725				M. Mc. P.
49		700	500	700		115				Mc. C.
50		2,000				1,200	.01	.01		Mc.M.P.C.
51	Private	350	300	360		400	.12 – .09	.075– .02	Hartford Electric Light Co.	C. Mc. P.
52			5,000	(16,700)		10,000				M. Mc. P.
53			6,600	14,500		10,500				M. Mc.
54										M. P.
55			267	(750)		450		.13	Westerly Light & Power Co.	Mc. P.
56		85	100	75		62		.13		Mc. P. C.
	Total, A	41,910	50,329	101,099	75	104,689				

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

CONNECTICUT—Continued.

B.—MUNICIPAL PLANTS.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
57		D	East Norwalk	East Norwalk		
58		GD	Groton and Poquonock	Groton	Groton	
59		D	Jewett City	Jewett City	Jewett City	
60		GD	Norwich and Greenville	Norwich	Norwich	
61		GD	South Norwalk	South Norwalk	South Norwalk	
62		GD	Wallingford	Wallingford	Wallingford	

C.—ALL OTHER PLANTS.

63	Hartford & Springfield Street Ry. Co	G	Electric railway	Warehouse Point	Warehouse Point	
	New York, New Haven & Hartford R. R. Co	H				
64	Connecticut Co., The	G	do	Berlin	Berlin	
65	Do		do	Bridgeport	Bridgeport	
66	Do		do	Burrville	Burrville	
67	Do		do	Hartford	Hartford	
68	Do		do	New Haven, No. A	New Haven	
69	Do		do	New Haven, No. B		
70	Do		do	New Haven, No. C	New Haven	
71	Norwich & Westerly Traction Co	HG	Electric Railway	Hallville	Hallville	
72	Groton & Stonington Street Ry. Co	G	do	Mystic	Mystic	

DELAWARE.

A.—PUBLIC UTILITY PLANTS.

1	American Power Co	GD	Delaware City	Delaware City	Delaware City	
2	Delaware Water Improvement Co	D	New Castle	New Castle	New Castle	
3	Georgetown Light, Heat & Power Co	GD	Georgetown and Milton	Georgetown	Georgetown	
4	Milton Light, Power & Water Co	GD	Milton	Milton	Milton	
	National Properties Co	H				
5	Wilmington & Philadelphia Traction Co	GTD	Points in Delaware	Chester	Chester	
6	Do		Pennsylvania and Maryland	Wilmington	Wilmington	
7	New Castle County Electric Co	D	Newark and points north	Newark	Newark	
8	Phoenix Co. (The)	D	Harrington	Harrington		
9	Sussex Light & Power Co	GD	Laurel and vicinity	Laurel	Laurel	
10	Truitt, W. S., Electric Light Plant	GD	Rehoboth	Rehoboth	Rehoboth	

B.—MUNICIPAL PLANTS.

11		GD	Dover	Dover	Dover	
12		GD	Lewes	Lewes	Lewes	
13		GD	Middletown	Middletown	Middletown	
14		GD	Milford	Milford	Milford	
15		GD	Newark	Newark	Newark	
16		GD	Smyrna	Smyrna	Smyrna	

DISTRICT OF COLUMBIA.

A.—PUBLIC UTILITY PLANTS.

1	Capitol Traction Co	GT		Wisconsin Avenue	Washington	
	Washington Railway & Electric Co	H				
2	Potomac Electric Power Co	GTD	District and vicinity	Fourteenth and B Streets.	do	
3	Do			Benning Road	do	

C.—ALL OTHER PLANTS.

4	Washington-Virginia Ry. Co		Electric railway		Washington	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

CONNECTICUT—Continued.

B.—MUNICIPAL PLANTS.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or k.m.p-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
57										Mc.
58			600	3,220	80	1,575				Mc.
59									Danielson & Plainfield Gas & Electric Co.	Mc.
60			1,157	4,630		3,300				Mc.
61			500	655	675	885				Mc.
62			700	1,630		600				Mc.
	Total, B		2,957	10,135	755	6,450				

C.—ALL OTHER PLANTS.

63			1,000	1,800		1,100				M. Mc.
64			1,500	3,000		1,700				Mc.
65			3,500	5,830		3,800				Mc.
66			500	500		350				Mc.
67			5,100	13,570		5,730				Mc.
68			6,200	9,950		6,850				Mc.
69										
70			1,000	1,550		1,075				Mc.
71			1,250	1,500		1,200				M. Mc.
72			606	970		650				M. Mc.
	Total, C		20,656	38,670		22,455				
	Grand total	41,910	74,142	149,904	830	133,594				

DELAWARE.

A.—PUBLIC UTILITY PLANTS.

1					250	165			Wilmington & Philadelphia Traction Co.	Mc.
2									do	Mc.
3			150	175		120				Mc.
4		54	120	(200)		(125)				Mc.
5			8,400	14,800		10,700			Delaware County Electric Co.	Mc. M.
6										Mc.
7									Wilmington & Philadelphia Traction Co.	Mc. M.
8										Mc.
9			450	950		500				Mc.
10			165	175		115				Mc.
	Total, A	54	9,285	16,300	250	11,725				

B.—MUNICIPAL PLANTS.

11			350	370		450				Mc.
12			200	230		180				Mc.
13			200	210		160				Mc.
14			700	400		200				Mc.
15			200	150		100			Wilmington & Philadelphia Traction Co.	Mc.
16			250	175		110				Mc.
	Total, B		1,900	1,535		1,200				
	Grand total	54	11,185	17,835	250	12,925				

DISTRICT OF COLUMBIA.

A.—PUBLIC UTILITY PLANTS.

1			8,800	16,870		13,100				M. Mc.
2			11,764	47,000		37,000				M. Mc.
3			4,950	6,800		4,850				M. Mc.
	Total, A		25,514	70,670		54,950				

C.—ALL OTHER PLANTS.

4			2,300	4,170		3,000				Mc. M.
	Total, C		2,300	4,170		3,000				
	Grand total		27,814	74,840		57,950				

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY, FLORIDA.

A.—PUBLIC UTILITY PLANT.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
1	Appalachicola Electric Light & Telephone Co	GD	Appalachicola	Appalachicola	Appalachicola	
2	Atlantic Land & Improvement Co	GD	Port Tampa	Port Tampa	Port Tampa	
3	Bagdad Land & Lumber Co	GD	Bagdad	Bagdad	Bagdad	
4	Bunnell Light & Water Co	D	Bunnell	Bunnell	Bunnell	
5	Central Florida Ry. Co	GD	Daytona	Daytona	Daytona	
6	Chipley Light & Power Co	GD	Chipley	Chipley	Chipley	
7	Clearwater Ice Factory	GD	Clearwater, Dunedin, and Largo.	Clearwater	Clearwater	
8	Dade City Ice, Light & Power Co	GD	Dade City	Dade City	Dade City	
9	Davenport Light & Ice Co	GD	Davenport	Davenport		
10	Eustis Water, Light & Power Co	GD	Eustis, Tavares, and Umatilla.	Eustis	Eustis	
11	Florida Power Co	GTD	Inverness, Dunnellon, Floral City.	Camp Station		Withlacoochee River.
12	Fort Meade Electric Co	D	Fort Meade	Fort Meade	Fort Meade	
	General Utilities & Operating Co	H				
13	St. Petersburg Lighting Co	GD	St. Petersburg, Gulfport, Davista.	St. Petersburg	St. Petersburg	
14	Goodno, E. F., Electric Light & Ice Plant	GD	Labelle and Fort Thompson.	Labelle	Fort Thompson	
15	Jasper Water & Light Co	GD	Jasper	Jasper	Jasper	
16	Lake Worth Light, Water & Ice Co	GD	Lake Worth	Lake Worth	Lake Worth	
17	Leesburg Ice Co	GD	Leesburg	Leesburg	Leesburg	
	Massachusetts Lighting Cos	H				
18	Daytona Public Service Co	GD	Daytona, Seabreeze, Daytona Beach.	Daytona	Daytona	
19	Miami Electric Light & Power Co	GD	Miami, Buena Vista, and Little River.	Miami	Miami	
20	Mulberry Electric Co	D	Mulberry	Mulberry	Mulberry	
21	Orlando Water & Light Co	GD	Orlando, Maitland, Winter Park.	Orlando	Orlando	
22	Palatka Gas Light & Fuel Co	GD	Palatka	Palatka	Palatka	
23	Perry Electric Co	GD	Perry	Perry	Perry	
24	Plant City Ice & Power Co	GD	Plant City	Plant City	Plant City	
25	St. Andrews Ice & Power Co	GD	St. Andrews	St. Andrews	St. Andrews	
26	St. Johns Electric Co	GD	St. Augustine, Anastasia, and New Augustine.	St. Augustine	St. Augustine	
27	Sarasota Ice & Electric Co	GD	Sarasota	Sarasota	Sarasota	
	Stetson, J. B., estate	H				
28	Deland Electric Light, Power & Ice Co	GD	De Land and Stetson	De Land	De Land	
	Stone & Webster	M				
29	Jacksonville Traction Co	GTD	Jacksonville	Jacksonville	Jacksonville	
30	Key West Electric Co	GTD	Key West	Key West	Key West	
31	Pensacola Electric Co	GTD	Fort Barancas, Goulding, and Pensacola.	Pensacola	Pensacola	
32	Tampa Electric Co	GTD	Tampa and West Tampa	Tampa	S. 24, T. 29 S., R. 19 E.	Hillsboro River
33	Titusville Electric Light Co	GD	Titusville	Titusville	Titusville	
	White, J. G., & Co. (Inc.)	H				
34	Arcadia Ice & Electric Co	GD	Arcadia	Arcadia	Arcadia	
35	Ariston Ice & Electric Co	GD	West Palm Beach and Palm Beach.	West Palm Beach	West Palm Beach	
36	Fort Lauderdale Ice & Electric Co	GD	Fort Lauderdale	Fort Lauderdale	Fort Lauderdale	
37	Fort Myers Ice & Electric Co	GD	Fort Myers	Fort Myers	Fort Myers	
38	Live Oak Ice & Electric Co	GD	Live Oak	Live Oak	Live Oak	
39	Manatee Electric Co	GD	Bradentown, Manatee, and Palmetto.	Bradentown	Bradentown	
40	Sanford Light & Fuel Co	GD	Sanford	Sanford	Sanford	
41	Tarpon Springs Ice & Electric Co	GD	Tarpon Springs	Tarpon Springs	Tarpon Springs	
42	Winter Garden Light & Water Co	GD	Winter Garden and Oakland	Winter Garden	Winter Garden	
43	Winterhaven Water, Ice & Light Co	GD	Lake Alfred and Winterhaven.	Winterhaven	Winterhaven	
44	Zephyrhills Electric Co	GD	Zephyrhills	Zephyrhills	Zephyrhills	

B.—MUNICIPAL PLANTS.

45		GD	Bartow	Bartow	Bartow	
46		GD	Fernandina	Fernandina	Fernandina	
47		GD	Gainesville	Gainesville	Gainesville	
48		GD	Jacksonville	Jacksonville	Jacksonville	
49		GD	Kissimmee	Kissimmee	Kissimmee	
50		GD	Lake City	Lake City	Lake City	
51		GD	Lake Helen and Ariel	Lake Helen	Lake Helen	
52		GD	Lakeland	Lakeland	Lakeland	
53		GD	Madison	Madison	Madison	
54		GD	Marianna	Marianna	Marianna	
55		GD	Milton	Milton	Milton	
56		GD	Ocala	Ocala	Ocala	
57		GD	Punta Gorda	Punta Gorda	Punta Gorda	
58		GD	Quincy	Quincy	Quincy	
59		GD	South Jacksonville	South Jacksonville	South Jacksonville	
60		GD	Starke	Starke	Starke	
61		GD	Tallahassee	Tallahassee	Tallahassee	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

FLORIDA.

A.—PUBLIC UTILITY PLANTS.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
1			225	225		255				Mc.
2	Private		400	300		150	$0.10			Mc. C.
3	Do		1,600	1,320		1,000				M. Mc. C.
4										Mc.
5					200	100	.10	$0.075		Mc. C.
6	Private		120	275		175	$0.15 –.08	.07		Mc. C.
7	Do		425	500		348	.12 –.08	$0.06 –.04		Mc. C.
8			100	60	80	105	.125–.10	.10 –.04		Mc. C.
9		30				35				Mc.
10			170	485		375	.15 –.07	.10 –.06		Mc. C.
11	Private	5,600				3,200	.03	.03		Mc. C.
12									General Phosphate Co.	Mc.
13	Private		1,500	2,000		1,500	.10 –.07	.05 –.03		Mc. C.
14	Do		250	60		56				Mc. C.
15			160	100		50	.15			Mc. C.
16	Private				65	40	.15 –.10	.10		Mc. C.
17			280	260		162½	.15 –.10	.10 –.06		Mc. C.
18	Private		750	970		595	.15	.106–.0715		Mc. C.
19			1,500	2,255		1,600				Mc.
20									Prairie Pebble Phosphate Co.	Mc.
21	Private		750	1,350		1,000	.11 –.06	.09 –.04		Mc. C.
22	Do		275	290		270	.10	.08 –.05		Mc. C.
23			275	275		150				Mc.
24			300	150	120	200	.125			Mc. C.
25	Private		200	250		240	.15	.055		Mc. C.
26			1,500	1,300		665				M. Mc.
27			500	75		60				Mc.
28			450	753		450	.10	.08 –.05		M. Mc.
29			1,250	3,000		2,700				M. Mc. C.
30	Private		600	450	675	840	.15 –.08	.10 –.05		Mc. C.
31	Do		1,600	3,740		2,300	.12 –.06	.10 –.025		M. Mc. C.
32	Private	1,400	500	750		690	.10 –.05			M. Mc. C.
33			(50)	60		(35)				Mc.
34			240	225		175				M. Mc.
35			700	550		660				M. Mc.
36			230	200		125				M. Mc.
37			500	1,002		350				M. Mc.
38			400	750		500				M. Mc.
39			500	700		260				M. Mc.
40	Private		380	475		435	.12 –.08	.09 –.06		M. Mc. C.
41			425	225		125				M. Mc.
42			150	180		125				Mc.
43	Private		200	125		75	.15	.15		Mc. C.
44					25	20	.15			Mc.
	Total, A	7,030	19,255	25,685	1,165	23,361				

B.—MUNICIPAL PLANTS.

45			300	210		175	$0.08			Mc.
46			400	400		285	.08	$0.08		Mc. C.
47			500	600		425				Mc.
48	Private		5,200	8,000		6,000	$0.07–.02	$0.04–.02		Mc. C.
49			180	180		(110)				Mc.
50			550	500		360				Mc.
51	Private			70		50			Buys steam	Mc. C.
52			300	450		275				Mc.
53			160	100		140				Mc.
54			200	200		175				Mc.
55	Private		125	75		50	.15–.075	.10–.05		Mc. C.
56			550	487		350				Mc.
57						50			Buys steam	Mc.
58			300	300		258	.125			Mc.
59	Private		300	250		285	.10–.05	.03		Mc. C.
60			250	225		150	.15–.10			Mc. C.
61	Private		500	650		650	.10–.055	.07–.05		Mc. C.
	Total, B		9,815	12,697		9,628				

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

FLORIDA—Continued.

C.—ALL OTHER PLANTS.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
	Coronet Phosphate Co	H				
62	Coronet Mining Co	G	Mining	Pembroke	T. 31 S., R. 25 E	

GEORGIA.

A.—PUBLIC UTILITY PLANTS.

1	Albany Power & Manufacturing Co	GD	Hardaway, Albany, and Leesburg.	Albany	Albany	Muckalee Creek
2	Americus Public Service Co	GD	Americus	Americus	Americus	
	Brunswick Terminal & Railway Securities Co	H				
3	Mutual Light & Water Co	GD	Brunswick	Brunswick	Brunswick	
4	Byromville Manufacturing Co	GD	Byromville	Byromville	Byromville	
5	College Park Electric Light Co	D	College Park	College Park		
6	Dallas Light, Power & Water Co	D	Dallas	Dallas		
7	Darien Manufacturing Co	GD	Darien and Ridge	Darien	Darien	
	Doherty Operating Co	M				
8	Athens Railway & Electric Co	GD	Athens	Athens	Athens	
9	Do	GD	do	Mitchell Bridge	Mitchell Bridge	Middle Oconee
10	Do	GD	do	Tallassee Falls	Tallassee Shoals	do
11	(Lessor, James White)	L	do	Barnet Shoals	Barnet Shoals	Oconee River
12	Eastman Electric Light Co	GD	Eastman	Eastman	Eastman	
13	Franklin Light & Power Co	GD	Lavonia, Royston, Canon	Hartwell	Hartwell	
14	(Lessor, Shoal Creek Power Co.)	L	Bowersville and Gainesville	do		
15	Gainesville Railway & Power Co	GD		New Bridge	New Bridge	Chestatee River
	Georgia Light, Power & Railways Company	H				
16	Central Georgia Power Co	GTD	Jackson, Macon, Forsyth	Lloyd Shoals	Lloyd Shoals	Ocmulgee River
17	Central Georgia Transmission Co	D	Macon	Macon		
18	Macon Railway & Light Co	GTD	do	do	Macon	
19	Georgia Railway & Power Co	HGTD	Northwestern Georgia	Atlanta	Atlanta	
20	Do		do	do	do	
21	Do			Dunlap		Chattahoochee
22	Do			Morgan Falls	Morgan Falls	
23	Do			Tallulah Falls	Tallulah Falls	Tallulah River
24	Carrollton Electric Co	GD	Carrollton	Carrollton	Carrollton	
25	Suburban Gas & Electric Co	D	Decatur and Kirkwood	Decatur		
26	Harmony Grove Mills	GD	Commerce	Commerce	Commerce	
27	Home Light & Power Co	GD	Copper Hill, Tenn., and McCaysville, Ga.			Fightingtown Creek
28	Kennesaw Paper Co	GD	Marietta	Marietta	Marietta	
29	Lawrenceville Manufacturing Co	GD	Lawrenceville	Lawrenceville	Lawrenceville	
	Lee, Newton & Rosser	GD				
30	(Lessor, M. K. Word)	L	Hogansville	Hogansville	Hogansville	
31	Lumber City Light & Power Co	D	Lumber City	Lumber City		
	McCrary, J. B	GD				
32	(Lessor, Abbeville Light & Power Co.)	L	Abbeville	Abbeville	Abbeville	
33	Montezuma Light & Power Co	GD	Montezuma	Montezuma	Montezuma	
	Municipal Service Co	H				
34	Valdosta Lighting Co	GD	Valdosta	Valdosta	Valdosta	
35	Oconee River Mills Co	GD	Milledgeville	Milledgeville		
36	Palmetto Light & Power Co	GD	Palmetto	Palmetto	Palmetto	North Fork Bear Creek
37	Panola Light & Power Co		Conyers and Lithonia	Conyers	Conyers	South River
38	Paulding County Power Co	GTD	Dallas	Dallas		
39	Pelham Public Utilities Co	GD	Pelham	Pelham	Pelham	
40	Putnam Mills & Power Co	GD	Eatonton	Eatonton		
41	Rome Railway & Light Co	GD	Rome	Rome	Rome	
42	Savannah Lighting Co		Savannah	Savannah	Savannah	
43	Senoia Electric Light & Power Co	GD	Senoia	Senoia	Senoia	
44	Smith, J. G., Electric Light Plant	GD	McDonough	McDonough	McDonough	
	Southern Finance Corporation	H				
45	Wofford Shoals Light & Power Co	GD	Baldwin, Cornelia, Mount Airy Alto.	Baldwin	Near Cornelia	Nancytown Creek
46	Stillmore Electric Light Co	GD	Stillmore	Stillmore	Stillmore	
	Stone & Webster, Management Association	M				
47	Columbus Electric Co	TD	Columbus, West Point			
48	Columbus Power Co	GD	Hogansville, Grantsville, Trimble, Girard, Phoenix City, and Lanett.	Columbus, No. 4	Columbus	
49	Do	GTD		Goat Rock, No. 5	Near Columbus	
50	Do			North Highland, No. 1	Bibb City	Chattahoochee River
51	(Lessor, Columbus Railroad Co.)	L		City Mills, No. 3	Columbus	do
52	Savannah Electric Co	GTD	Savannah and Thunderbolt.	Indian Street	Savannah	
53	(Lessor, Savannah Power Co.)	L	Savannah	Savannah	do	
54	Toccoa Falls Light & Power Co	GD	Toccoa Falls	Toccoa		
55	Towaliga Falls Power Co	GTD	Griffin	Griffin		Towaliga River
56	Villa Rica Electric Light & Power Co	GD	Villa Rica	Villa Rica	Villa Rica	
57	Ware County Light & Power Co	GD	Waycross	Waycross	Waycross	
58	Water Power & Mining Co	GD	Dahlonega	Dahlonega		
59	West Point Manufacturing Co	GD	West Point and vicinity	West Point	Adjoining Longdale, Ala.	Chattahoochee River
	White, J. G., & Co. (Inc.)	M				
60	Augusta-Aiken Railway & Electric Corporation.	HGTD	Augusta and north	Augusta		
61	Augusta Railway & Electric Co	GTD	Augusta, S. C	do		
62	Cordele Electric Co	GD	Cordele	Cordele	Cordele	
63	Georgia-Carolina Power Co	GT		Augusta		
64	Tifton Ice & Power Co	GD	Tifton	Tifton	Tifton	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

FLORIDA—Continued.

C.—ALL OTHER PLANTS.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
62	Private				1,150	937				C.
	Total, C				1,150	937				
	Grand total	7,030	29,070	38,382	2,315	33,926				

GEORGIA.

A.—PUBLIC UTILITY PLANTS.

1	Private	2,330	500	2,130		2,500	$0.005	$0.03 -$0.015		M. O. C.
2	Do		1,000	1,000		750				M. C.
3	Do		600	625		470	.11	.07		C.
4			60	50		(45)				Mc.
5									City of East Point	Mc.
6									Paulding County Power Co	Mc.
7			250	(80)		50				Mc.
8	Private		1,500	2,000		1,500	.10	.05 - .006		M. Mc. C.
9	Do	867				650	.10	.05 - .006		M. Mc. C.
10	Do	1,200				900	.10	.05 - .006		M. Mc. C.
11	Do	3,733				2,800	.10	.05 - .006		M. Mc. C.
12			120	120		75				Mc.
13			330	500		369				Mc.
14		100								Mc.
15		1,500	300	387		900	.10 - .075	.07 - .02		M. Mc. C.
16		33,000				18,000				M. Mc. O.
17										Mc.
18			2,400	4,750		3,750			Central Georgia Power Co	M. Mc. O.
19			15,555	33,295		21,500				Mc. M.
20										Mc.
21						3,000			Central Georgia Power Co	M. Mc. O.
22		100,400				10,500			Tennessee Power Co. and Columbus Power Co.	M. C.
23						60,000			do	M. Mc.
24			275	425		325	.09	.06	Georgia Railway & Power Co	Mc. M.
25									do	Mc. M. C.
26			600	110		70				Mc.
27	Private	150				75	.10			C.
28			6,600	1,875		492				M. Mc.
29			100	90		(55)				Mc.
30			80	75		65				Mc.
31										Mc.
32			150	80		75				Mc.
33	Private		160	125		150	.125	.125		Mc. C.
34	Do		1,500	1,667		1,550	.10 - .05	.06 - .02		M. Mc. C.
35		150	500	450		400				Mc.
36	Private	50	(20)	18		50	.125			Mc. C.
37	Do	300				215	.12 - .05	.05 - .015	Georgia Railway & Power Co	C.
38		300				275				Mc.
39			400	550		400				Mc.
40		450	250	290		250				Mc.
41		1,500	1,000	2,330		1,750			Georgia Railway & Power Co	M. Mc.
42	Private		2,250	9,600		8,030	.12 — .06	.04 - .0125		Mc. C.
43		100				(60)				Mc.
44	Private		118	160		100	.10			Mc. C.
45	Do	150				107½	.12 - .06	.06 - .0220		M. Mc. C.
46						17				Mc.
47									Columbus Power Co	M. Mc.
48			1,700	2,360		1,825				M. O. C.
49	Private	18,200				13,750		16.20 + .0075		M. Mc. O. C.
50	Do	10,150				6,900				Mc. O. C.
51	Do	1,076				1,000				C.
52			(1,300)	1,730		1,300				Mc. C.
53			2,600	14,700		11,000				Mc. C.
54		150				100	.10			M. Mc.
55		3,600	550	750		3,900				Mc. O.
56	Private		80	35		30	.125			Mc. C.
57			375	875		1,075				Mc.
58	Private	150				90				Mc. C.
59	Do	3,000	3,500	(5,000)		6,150	.0875	.0875	Columbus Power Co	M. C.
60		2,700	2,750	5,417		5,500				M. Mc.
61		2,500	1,700	2,000		6,675				Mc.
62	Private		300	500		300				Mc. C.
63		15,000				13,500				M. Mc.
64			400	425		275				Mc.
	Total, A	203,406	51,873	96,374		215,660				

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

GEORGIA—Continued.

B.—MUNICIPAL PLANTS.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
65		GD	Acworth	Acworth	Acworth	
66		GD	Adel	Adel	Adel	
67		D	Albany	Albany	Albany	
68		GD	Arlington	Arlington	Arlington	
69		GD	Ashburn	Ashburn	Ashburn	
70		GD	Bainbridge	Bainbridge	Bainbridge	
71		GD	Blakely	Blakely	Blakely	
72		GD	Blue Ridge	Blue Ridge	Blue Ridge	Fightingtown Creek
73		GD	Boston	Boston	Boston	
74		GD	Bremen	Bremen	Bremen	
75		GD	Cairo	Cairo	Cairo	
76		D	Calhoun	Calhoun		
77		GD	Camilla	Camilla	Camilla	
78		GD	Canton	Canton	Canton	
79		GD	Cartersville	Cartersville	Cartersville	
80		GD	Cedartown	Cedartown	Cedartown	
81		GD	Claxton	Claxton	Claxton	
82		GD	Cochran	Cochran	Cochran	
83		GD	Covington and Oxford	Covington	Covington	
84		GD	Cuthbert	Cuthbert	Cuthbert	
85		GD	Dalton	Dalton	Dalton	
86		GD	Dawson	Dawson	Dawson	
87		GD	Doerun	Doerun	Doerun	
88		GD	Douglas	Douglas	Douglas	
89		GD	Douglasville	Douglasville	Douglasville	
90		GD	Dublin	Dublin	Dublin	
91		D	East Point, Hapeville, and College Park.	East Point	East Point	
92		GD	Edison	Edison	Edison	
93		GD	Elberton	Elberton	Elberton	
94		D	Fairburn	Fairburn	Fairburn	
95		GD	Fitzgerald	Fitzgerald	Fitzgerald	
96		GD	Fort Valley	Fort Valley	Fort Valley	
97		GD	Griffin	Griffin	Griffin	
98		GD	Hawkinsville	Hawkinsville	Hawkinsville	
99		GD	Hazlehurst	Hazlehurst	Hazlehurst	
100		D		Jackson		
101		D	Jonesboro	Jonesboro	Jonesboro	
102		GD	Lagrange	Lagrange	Lagrange	
103		GD	Louisville	Louisville	Louisville	
104		GD	Lyons	Lyons	Lyons	
105		GD	McRae	McRae	McRae	
106		GD	Madison	Madison	Madison	
107		GD	Manchester, Warm Springs, and Bullochville.	Manchester	Manchester	
108		GD	Marietta	Marietta	Marietta	
109		GD	Meigs	Meigs	Meigs	
110		GD	Millen	Millen	Millen	
111		GD	Monroe	Monroe	Monroe	
112		GD	Monticello	Monticello	Monticello	
113		GD	Moultrie	Moultrie	Moultrie	
114		GD	Nashville	Nashville	Nashville	
115		GD	Newnan	Newnan	Newnan	
116		D	Norcross	Norcross		
117		GD	Norman Park	Norman	Norman	
118		GD	Ocilla	Ocilla	Ocilla	
119		GD	Quitman	Quitman	Quitman	
120		GD	Richland	Richland	Richland	
121		GD	Rockmart	Rockmart	Rockmart	
122		GD	Sandersville and Tennille	Sandersville	Sandersville	
123		GD	Shellman	Shellman	Shellman	
124		GD	Social Circle	Social Circle	Social Circle	
125		GD	Sparks	Sparks	Sparks	
126		GD	Statesboro	Statesboro	Statesboro	
127		GD	Swainsboro	Swainsboro	Swainsboro	
128		GD	Sylvester	Sylvester	Sylvester	
129		GD	Tallapoosa	Tallapoosa	Tallapoosa	
130		GD	Thomaston	Thomaston	Thomaston	
131		GD	Thomasville and vicinity	Thomasville	Thomasville	
132		GD	Thomson	Thomson	Thomson	
133		GD	Vidalia	Vidalia	Vidalia	
134		GD	Warrenton	Warrenton	Warrenton	
135		GD	Washington	Washington	Washington	
136		GD	Waynesboro	Waynesboro	Waynesboro	
137		GD	West Point	West Point	West Point	
138		GD	Winder	Winder	Winder	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

GEORGIA—Continued.

B.—MUNICIPAL PLANTS.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
65			(90)	100		(60)				Mc.
66			275	125		80				Mc. C.
67									Albany Power & Manufacturing Co.	Mc. C.
68			100	80		50				Mc.
69			200	(75)		45				Mc.
70	Private		500	400		200	$0.105–$0.07	$0.07–$0.03		Mc. C.
71			300	250		250				Mc.
72	Private	250				150	.10			Mc. C.
73			250	100		80				Mc.
74	Private		90	90		60	.10	.06		Mc. C.
75			200	235		150	.15 – .09	.09– .05		Mc. C.
76										Mc.
77			170	325		200				Mc.
78	Private		250	275		160	.12 – .10	.07– .03		Mc. C.
79			450	350		200				Mc.
80			300	300		210				Mc.
81			125	80		180				Mc.
82			230	165		110				Mc.
83			180	250		176				Mc.
84			300	175		125				Mc.
85			350	410		300			Georgia Railway & Power Co..	Mc.
86			300	440		325				Mc.
87			100	90		62½				Mc.
88			450	325		300				Mc.
89			125	105		70				Mc. C.
90			550	1,000		612				Mc.
91	Private								Georgia Railway & Power Co..	Mc. C.
92			80	75		60	.12½			Mc.
93		250	160	150		200				Mc.
94	Private								Georgia Railway & Power Co..	Mc. C.
95	Do		550	975		655				Mc. C.
96	Do		160	200		183				Mc. C.
97			350	350		240	.07 – .015	.04– .0175	Central Georgia Power Co....	Mc. C.
98	Private		310	325		225	.12 – .08			Mc. C.
99			125	175		60				Mc.
100									Central Georgia Power Co....	Mc.
101	Private						.12 – .08	.07– .02	Central Georgia Light Co.....	Mc. C.
102			450	600		400				Mc.
103			160	175		165				Mc.
104			80	80		60				Mc.
105			(110)	150		108				Mc.
106	Private		225	250		200	.10	.10		Mc. C.
107	Do		150	100		100	.15 – .0375	.05– .02		Mc. C.
108			300	250		200				Mc.
109	Private		160	85		60	.15	.15		Mc. C.
110			125	(170)		100				Mc.
111	Private		300	185		125	.085	.07– .035	Georgia Railway & Power Co..	Mc. C.
112			125	75		60			Central Georgia Power Co....	Mc.
113	Private		400	750		500	.10	.05		Mc. C.
114			125	(150)		90				Mc.
115			300	450		300			Columbus Power Co.....	Mc.
116									Georgia Railway & Power Co..	Mc.
117			100	75		50				Mc.
118			200	140		100				Mc.
119	Private		348	250		250	.10	.10– .075		Mc. C.
120			200	125		100				Mc.
121	Private		180	292		206	.10	.07– .03		McC.
122	Do		300	405		275	.165– .10	.10– .025		McC.
123			180	65		50	.126			McC.
124			(80)	(125)		75				Mc.
125			100	75		50				Mc.
126	Private		250	325		255	.11			McC.
127			120	325		65				Mc.
128	Private		180	283		100	.10	.07		McC.
129			200	125		100				Mc.
130			200	250		160				Mc.
131			550	650		450	.10	.05– .02		McC.
132			200	135		100				Mc.
133			250	100		(60)				Mc.
134	Private		70	100		60	.15 – .10			McC.
135			200	235		150				Mc.
136	Private		300	200		150	.12 – .08	.12– .08		McC.
137			300	250		150	.10 – .07	.07– .05	West Point Manufacturing Co.	McC.
138			260	130		150				Mc.
	Total, B	500	15,398	16,127		11,442				

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

GEORGIA—Continued.

C.—ALL OTHER PLANTS.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
139	Augusta City		Augusta	Augusta	Augusta	Savannah River
140	Augusta Factory		Cotton mills	Atlanta	Atlanta	do
141	Augusta Lumber Co		Manufacturing	Augusta	Augusta	do
	Brunswick Terminal & Railway Securities Co	H				
142	City & Suburban Ry. Co	G	Electric railway	Brunswick	Brunswick	
143	Clark Milling Co		Grain mill	Atlanta	Atlanta	Savannah River
144	Eagle & Phoenix Mills	G	Manufacturing	Columbus	Columbus	Chattahoochee River
145	Enterprise Manufacturing Co		Cotton mills	Augusta	Augusta	Savannah River
146	Fulton Bag & Cotton Mills		Mills	Atlanta	Atlanta	do
147	Georgia Iron Works		Machine shop	do	do	do
148	Globe Cotton Mills		Cotton mills	Augusta	Augusta	do
149	King Manufacturing Co		do	do	do	do
150	Lombard Iron Works		Machine shop	do	do	do
151	Nixon & Co		Grain mill	do	do	do
152	Sibley Manufacturing Co		Cotton mill	do	do	do
153	Singleton Silk Manufacturing Co		Silk mill	do	do	do
154	Stewart Lumber Co		Mill	Brinson	Brinson	
155	Sutherland Manufacturing Co		Cotton mills	Augusta	Augusta	Savannah River
156	Waycross Street & Suburban Ry. Co		Electric railway	Waycross	Waycross	
157	White, J. R., Electric Light & Power Plant		Manufacturing	White Hall	White Hall	Oconee River

IDAHO.

A.—PUBLIC UTILITY PLANTS.

1	Adams County Light & Power Co	GD	Cambridge	Rush Creek	S. 27 and 28, T. 16 N., R. 3W.	Rush Creek
2	Aulback, Adam, Electric Light Co	GD	Murray	Murray	Murray	Alder Gulch
3	Beaver River Power & Electric Light Co	GD	Pocatello	Pocatello	In Pocatello	
4	Boise-Rochester Milling Co	GD	Atlanta	Atlanta	T. 5 N., R. 11 E	Boise River
5	Bonner Water & Light Co	GD	Bonners Ferry	Bonners Ferry	Bonners Ferry	Myrtle Creek
6	Boston & Idaho Gold Dredging Co	GD	Boise County	Grampas	S. 10, T. 8 N., R. 5 E.	South Fork Payetto River.
7	Bunker Hill & Sullivan Milling & Construction Co.	GD	Kellogg and Wardner	Kellogg	Kellogg	
	Byllesby, H. M., & Co	M				
8	Northern Idaho & Montana Power Co	GD	Northern Idaho	Sand Point	Sand Point	
9	Canyon Creek Electric Light Co	GD	Burke, Black Bear, and Mace	Burke		
10	De Lamar Co. (Ltd.) (electric light plant)	D		De Lamar		
11	Evans, D. L	GD	Malade	Lower Birch Creek	S. 28, T. 12 S., R. 36 E.	Birch Creek
12	Do	GD	do	Upper Birch Creek	S. 29, T. 12 S., R. 36 E.	do
13	Federal Mining & Smelting Co	GT				
14	Grangeville Electric Light & Power Co	GD	Grangeville	Grangeville	S. 30, T. 30 N., R. 4 E.	South Fork Clearwater River.
15	Do	GD	Cottonwood, Greer, and vicinity.	Greer	T. 35 N., R. 2 E.	Lolo Creek
16	Hailey Electric Co	GD	Hailey	Hailey	S. 9, T. 2 N., R. 18 E.	Wood River
17	Harrison Electric Light Co	GD	Harrison	Harrison		
	Idaho Irrigation Co					
18	Richfield Public Service Co	GD	Richfield	Richfield	Richfield	
19	Juliaetta Milling Co	GD	Juliaetta	Juliaetta		
20	Kooskia Mill & Power Co	GD	Kooskia	Kooskia	Kooskia	South Fork Clearwater River.
21	Kootenai Power Co	GD	Coeur d'Alene	Coeur d'Alene	Coeur d'Alene	
22	Mackay Light & Power Co	GD	Mackay	Mackay	S. 2, T. 7 N., R. 24 E.	Cedar Creek
23	Meadows Light & Power Co	GD	Meadows and New Meadows	Meadows	S. 28, T. 19 N., R. 2 E.	Goose Creek
24	Mullan Light Co	GD	Mullan	Mullan	Mullan	Mill Creek
	National Securities Corporation	H				
25	Great Shoshone & Twin Falls Water Power Co.	GD	Southern Idaho from Mount Home to Oakley.	Lower Salmon Falls	S. 2, T. 7 S., R. 13 E.	Snake River
26	Do			Shoshone Falls	S. 31, T. 9 S., R. 18 E.	do
27	Do			Shoshone	T. 5 S., R. 17 E	Little Wood River
28	Idaho-Oregon Light & Power Co	GTD	Southwestern Idaho	Horseshoe Bend	S. 32, T. 7 N., R. 2 E.	Payette River
29	(Lessor, Boise-Payette Lumber Co.)	GTD	Eastern Oregon	Barber	S. 29, T. 3 N., R. 3 E.	Boise River
30	Idaho Power & Light Co	GTD	Southwest Idaho	Boise	Boise	
31	Do	GTD	do	Malade, No. 1	S. 34, T. 6 S., R. 13 E.	Malade River
32	Idaho Railway, Light & Power Co	GTD	do	Swan Falls	S. 18, T. 2 S., R. 1 E.	Snake River
33	Southern Idaho Water Power Co		American Falls, Blackfoot and Pocatello.	American Falls	S. 30 and 31, T. 7 S., R. 31 E.	do
34	Northwest Light & Water Co	GD	Wallace	Wallace		Placer Creek
35	Potlatch Lumber Co	GD	Elk River	Elk River	Elk River	
36	Do		Potlatch	Potlatch	Potlatch	
37	Rockwell-White Power Co	GD	Bellvue	Bellvue	S. 26, T. 2 N., R. 18 E.	Wood River
38	Rupert Electric Co	D	Rupert	Rupert	Rupert	
39	Salmon River Power & Light Co	GD	Salmon	Lower Salmon	S. 5, T. 21 N., R. 22 E.	Lemhi River
40	Do	GD	do	Upper Salmon	do	do
41	Shelley Mercantile Co	GD	Shelley	Shelley	Shelley	Snake River
42	Skinner, E. B., Light Plant	D	Heyburn			

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

GEORGIA—Continued.

C.—ALL OTHER PLANTS.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
139		1,000	(Water pumps)							C.
140		1,253								O.
141	Private	106	410	400						C.
142	Do		600	200		175			Mutual Lumber & Water Co.	McC.
143		181								O.
144		4,000	1,250			3,075			Columbus Power Co.	M. O. C.
145	Private	1,246	300	200						C.
146			4,500	6,500		3,500				C
147		36								O.
148		206								C.
149		2,928								O.
150		93								O.
151		88								O.
152		1,650								O.
153	Private	300							Augusta-Aiken Railway & Electric Corporation.	C.
154	Do		50	50		35				C.
155		237								C.
156						400			Ware County Light & Power Co.	Mc.
157	Private	325				375				C.
	Total, C	13,649	7,110	7,350		7,560				
	Grand total	217,555	74,381	120,051		234,662				

IDAHO.

A.—PUBLIC UTILITY PLANTS.

1	Forest	308				200	$0.15	$0.08		C. M. O. P.
2	Do	30				30	a. 50			O. P.
3	Private				500	375				C. P.
4	Do	150				6				
5	Do	200				200	$0.15 - .07	$0.07 - .003		Mc. P.
6	Forest	1,600				850	.20 - .06	.05 - .008		C. F. P.
7			450	1,200		375	.13 - .06	b. 025	Washington Water Power Co.	Mc. O. P.
8			900	900		500	.15 - .0175	.08 - .022	do	Mc. O. P.
9		160				100	.15	.10		Mc. P.
10							.07	.07		P.
11	Forest	200				125	.15	.07		C. F. P.
12	Do	220				150	.15	.07		F. Mc. P.
13										M. Mc.
14	Forest	1,100				624	.12 - .03	.07 - .01		F. M. Mc. O. P.
15	Private	200				150	.12 - .03	.07 - .01		Mc. O.
16	Do	600				400	.16 - .05	.075- .01		C. Mc. P.
17			200	250		100	.15			Mc. P.
18	Private		80	30		20	a. 50			C. M. P.
19		52				24	.125			Mc. P.
20	Private	102				36	.15	.05		Mc. O. P.
21			160	150		150	.10	c. 07	Washington Water Power Co.	Mc. O. P.
22	Forest	220				100	.16	.0075		C. F. Mc. O. P.
23	Private	86				50				C. P.
24	Forest	65				50	.16	.06	Federal Mining & Smelting Co.	Mc. O. P.
25	Private	8,000				4,000	.09	.75 + .07	Thousand Springs Power Co.	C. F. L. M. P.
26	Do	1,950				1,100	.09	.75 + .07		C. F. L. P.
27	Do	250				150	.09	.75 + .07		C. P.
28	Do	2,250				1,500			Idaho Power & Light Co. and United States Reclamation Service.	C. F. L. M. Mc. P. C.
29	Do	1,200				900	.12 - .09	.075		
30	Do		500	2,000		1,500	.09			C. F. P.
31	Public domain	8,000				4,000	.09	.075		C. F. M. P.
32	Do	5,700				4,200	.12	.06		C. L. M. Mc. P.
33	Private	7,000				4,500	.09	.07		F. M. P.
34	Do	335	300	300		300	.125- .07	b. 02 - .01	Washington Water Power Co.	M. Mc. P.
35			1,500	1,400		1,250	.12	.10 - .05		
36			2,700	2,900		750	.12	.10 - .05		P.
37	Private	1,000				600	.16 - .10			C. P.
38							.027- .023	.01 - .0053	United States Reclamation Service.	F. Mc. P.
39	Private	850				500	.15 - .08	.03 - .005		F. L. Mc. P.
40	Do	350				200	.15 - .08	.03 - .005		F. L. Mc. P.
41	Do	90				75	.12			C. Mc. P.
42							.07	.05	United States Reclamation Service.	Mc. P.

a Lamp-month. b $12 per horsepower-year. c $24 per horsepower-year.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

GEORGIA—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
43	Soda Springs Electric Co	GD	Soda Springs	Soda Springs	S. 6, T. 9 S., R. 42 E.	Soda Creek
44	Spirit Lake Land Co	D	Spirit Lake	Spirit Lake	Spirit Lake	
45	Teton Valley Power & Milling Co	GD	Driggs	Driggs	Driggs	Teton Creek
46	Thousand Springs Power Co	G	Great Shoshone and Twin Falls Water Power Co.	Thousand Springs	S. 8, T. 8 S., R. 14 E.	Thousand Springs
47	United States Reclamation Service	GTD	Boise	Boise	S. 13, T. 2 N., R. 3 E.	Boise River
48	Do	GTD	Minidoka and Cassia Counties.	Minidoka	S. 1, T. 9 S., R. 25 E.	Snake River
	Utah Securities Corporation	H				
49	Utah Power & Light Co	GD	Downey	Downey	Downey	
50	Do	GTD	Southeastern Idaho and northern Utah.	Georgetown	S. 4, T. 11 S., R. 44 E.	Georgetown Creek
51	Do	GTD		Grace	S. 21, T. 10 S., R. 40 E.	Bear River
52	Do	GTD		High Creek	S. 34, T. 15 S., R. 40 E.	Cub Creek
53	Do	GTD	East-central Idaho	Idaho Falls	S. 25, T. 2 N., R. 38 E.	Snake River
54	Do	GTD	McCammon	McCammon	McCammon	Portneuf River
55	Do	GTD	Southeast Idaho and northern Utah.	Oneida		Bear River
56	Do	GTD	do	Paris	S. 9, T. 14 S., R. 43 E.	Paris Creek
57	Do	GTD	East-central Idaho	St. Anthony	S. 1, T. 7 N., R. 40 E.	Snake River
58	Do	GTD	do	Teton	S. 31, T. 7 N., R. 41 E.	Teton River
59	Washington Water Power Co	GTD	Eastern Washington and northern Idaho.	Post Falls	S. 4, T. 50 N., R. 5 W.	Coeur d'Alene
60	Whitebird Electric Light & Power Plant	GD	Whitebird	Whitebird	Whitebird	Whitebird Creek

B.—MUNICIPAL PLANTS.

61		D	Burley	Burley	Burley	
62		GD	Idaho Falls	Idaho Falls	Idaho Falls	Snake River
63		D	Weiser	Weiser	Weiser	

C.—ALL OTHER PLANTS.

64	American Development Milling & Reduction Co		Milling	Lower North Fork	T. 26 N., R. 22 E.	Northfork
65	Do		Mining	Upper North Fork	do	Dahlonega and Northfork.
66	Atlanta Mines Co	G	do	Atlanta	T. 5 N., R. 11 E.	Boise River
67	Continental Milling & Power Co		Milling	Pine Creek	T. 23 N., R. 18 E.	Pine Creek
68	Idaho Continental Co	G	Mining	Porthill	Porthill	Boundary Creek
69	Kittie Burton Gold Mines Co		Milling	Ulysses	T. 24 N., R. 20 E.	Indian Creek
70	Leesburg Mining Co	G	do	Big Creek	T. 21 N., R. 18 E.	Big Creek
71	Pierce Co. (Ltd.)	G	Mining	Pierce City	Pierce City	Orofino Creek
72	Snydam, E. S		Milling	Shoup	T. 24 N., R. 19 E.	Boulder Creek

ILLINOIS.

A.—PUBLIC UTILITY PLANTS.

1	Abbott Light & Power Co	GD	Petersburg, Ashland, Greenview & Tallula.	Petersburg	Petersburg	
2	Albion Electric Light & Gas Co	GD	Albion	Albion	Albion	
	American Gas Co	H				
3	Consolidated Light & Power Co	GD	Kewanee, Sheffield, and Weathersfield.	Kewanee	Kewanee	
4	St. Clair County Gas & Electric Co	GD	Belleville	Belleville	Belleville	
	American Gas & Electric Co	H				
5	Rockford Electric Co	GD	Rockford	Rockford		
6	Atchison & Hilderbrand Light Plant	GD	Monroe Center	Monroe Center	Monroe Center	
7	Athens Electric Light Plant	GD	Athens	Athens	Athens	
8	Atlanta Electric Light & Power Co	GD	Atlanta and McLean	Atlanta	Atlanta	
9	Aurora, Elgin & Chicago R. R. Co	GTD	Dupage & Kane Counties	Batavia	Batavia	
10	Do	GD	Elgin	Elgin	Elgin	Fox River
11	Avon Milling & Manufacturing Co	GD	Avon	Avon	Avon	
12	Barrow, Eugene, Electric Light Plant	GD	Ava	Ava	Ava	
13	Bement Electric Light & Power Co	GD	Bement	Bement	Bement	
14	Blandinsville Electric Plant	GD	Blandinsville	Blandinsville	Blandinsville	
15	Bondville Electric Co	D	Bondville	Bondville		
16	Bonas, Emile, & Sons Light Plant	GD	Coulterville	Coulterville	Coulterville	
17	Bowen Electric Co	GD	Bowen	Bowen	Bowen	
	Breese Water & Light Co	GD				
18	(Lessor, city of Breese)	L	Breese	Breese	Breese	
19	Brick Electric Light Plant		Cullom	Cullom	Cullom	
	Byllesby, H. M., & Co	M				
20	Interstate Light & Power Co	GTD	Jo Davies County, Ill., and Lafayette and Grant Counties, Wis.	Galena	Galena	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

GEORGIA—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt. hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from	Source of information.
43	Private	60				45	$0.08	$0.08		F. Mc. P.
44							.15	.075	Washington Water Power Co.	O. P.
45	Forest	(250)				150				O.
46	Private	3,000				2,750				F. P.
47	Public domain	3,000				1,875	.01 – .0075			C. F.
48	Do	10,000				7,000	.04 – .023	.04 – .005		C.
49	Private		200	300		100				C.
50	National forest	300				180	.10	.05		C. F. M. Mc. P.
51	Private	50,000				33,000				C. F.
52	Do	1,000				550				C. F.
53	Do	3,400				1,875	.10			C.F.Mc.P.
54	Do					60				C.
55	Public	(16,700)				10,000				C.
56	Forest	1,180				650	.10			C.F.Mc.
57	Private	800				500	.10			C. Mc.
58	Do	127				100	.10			C. Mc.
59	Public	16,300				22,800	.16 – .13	.15 – .11		Mc.O.P.
60	Private	25				20	[a] 1.00			Mc. O.
	Total, A	148,410	6,990	9,430	500	111,795				

B.—MUNICIPAL PLANTS.

61							$0.027–$0.021	$0.01 –$0.005	United States Reclamation Service.	
62	Private	1,350				600	.10	.03		C.F.Mc.P.
63	Do						.09 .02	.06 .015	Electric Investment Co.	Mc. P.
	Total, B	1,350				600				

C.—ALL OTHER PLANTS.

64	Forest	(100)					Water plant			F.
65	Do	170					Water plant			F.
66	Private	600				360				C. P.
67	Forest	150					Water plant			F.
68	Do	800				550				O.
69	Do	100	90	70			Water plant			F.
70	Do	350				200				F.
71	Do	300				200				O.
72	Do	30					Water plant			F. C.
	Total, C	2,600	90	70		1,310				
	Grand total	152,360	7,080	9,500	500	113,705				

ILLINOIS.

A.—PUBLIC UTILITY PLANTS.

1			500	600		500				Mc.
2			200	150		75				Mc. C.
3	Private		1,725	1,700		1,220	$0.10 –$0.03	$0.10–$0.02		M. Mc. C.
4		1,680	4,600	15,000		11,650				Mc.
5			950	1,700		1,410				M. Mc.
6					15	87				Mc. C.
7			160	112		120				Mc.
8			200	300		195				Mc.
9			9,000	21,430		17,800	.08	.04		M. Mc. C.
10		75				125	.08	.06		C.
11	Private		140	180		125	.10	.08 – .06		Mc. C.
12			75	80		60				Mc.
13			120	140		120				Mc.
14			120	120		75				Mc.
15										Mc.
16			110	135		80				Mc.
17					75	37½				Mc.
18			315	250		200				Mc.
19			180	60		(35)	.12			C.
20	Private		2,430	9,660		7,250	.125– .08	.08 – .02		Mc. C.

[a] Lamp-month.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY, ILLINOIS—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
21	Canton Gas & Electric Co	GD	Canton and vicinity	Canton	Canton	
22	Cedar Point Light & Water Co	GD	Cedar Point	Cedar Point	Cedar Point	
23	Central Illinois Electric Co	D	East Central Illinois	Buffalo		
24	Centralia Gas & Electric Co	GD	Centralia and Central City	Centralia	Centralia	
25	Cherry Valley Light & Power Co	GD	Cherry Valley	Cherry Valley	Cherry Valley	Kishwaukee River.
26	Chester Light & Ice Plant	GD	Chester	Chester	Chester	
	Clark, E. W., & Co. Mortgage Corporation	M				
27	Alton Gas & Electric Co	D	Alton	Alton	Alton	
28	East St. Louis Light & Power Co	GD	East St. Louis	East St. Louis	East St. Louis	
29	East St. Louis & Suburban Ry. Co	GD	do	Alton		
30	Alton, Granite & St. Louis Traction Co			do	Alton	
31	Colfax Light Plant		Colfax	Colfax	Colfax	
32	Collinsville Electric Light Co			Collinsville		
	Commonwealth Power, Railway & Light Co	H				
33	Central Illinois Light Co	GD	Peoria, Tazewell, Fulton, Knox, Woodford, and Sangamon Counties.	Elmwood	Elmwood	
34	Do			Pekin	Pekin	
35	Do			Peoria	Peoria	
36	Do			Farmington	Farmington	
37	De Kalb-Sycamore Electric Co	GD	De Kalb and Sycamore	De Kalb	De Kalb	
38	Do			Sycamore	Sycamore	
39	Springfield Gas & Electric Co	GTD	Springfield	Springfield	Springfield	
40	Commonwealth Edison Co	GTD	Chicago	Chicago	Chicago	
41	(Elevated Railroad Co.)	L	do	Thirty-ninth and State Streets.	do	
42	(Metropolitan West Side Elevated Ry. Co)	L	do	Troop Street	do	
43	(Northwestern Elevated R. R. Co.)	L	do	Fullerton Avenue	do	
44	Culley, F. M	D	McClure	McClure		
45	Danvers Electric Light Plant	D		Danvers	Danvers	
	Doherty Operating Co	H				
46	Citizens Gas, Electric & Heating Co	GD	Mount Vernon	Mount Vernon	Mount Vernon	
47	Du Quoin Utility Co	GD	Du Quoin	Du Quoin	Du Quoin	
48	Effingham Electric Light & Power Co	GD	Effingham	Effingham	Effingham	
49	Electric Light Co	GD	Rankin and East Lynn	Rankin	Rankin	
50	Electric Service Co	GD	Cissna Park	Cissna Park	Cissna Park	
51	Elgin Merchants Light Co	GD	Elgin	Elgin		
52	Essex Light Co	GD	Essex	Essex	Essex	
53	Galva Electric Light Co	GD	Galva, Cambridge, Utah, Altona, and Oneida.	Galva	Galva	
54	Golconda Light & Water Co	GD	Golconda	Golconda	Golconda	
55	Greenview Electric Light & Power Co	D	Greenview and Sweetwater	Greenview	Greenview	
56	Hamilton Utilities Co	GD	Benton and West City	Benton	Benton	
57	Hard, L. C., Light Plant	GD	Medora	Medora	Medora	
58	Heyworth Electric Light & Power Co	D	Heyworth	Heyworth		
59	Hinckley Electric Light Plant	GD	Hinckley	Hinckley	Hinckley	
60	Homer Electric Light & Power Plant	GD	Homer and Sidney	Homer	Homer	
61	Hillview Electric Light Co	GD	Hillview	Hillview	Hillview	
62	Hoopeston Gas & Electric Co	GD	Hoopeston and Rossville	Hoopeston	Hoopeston	
63	Hull Milling, Lighting & Canning Co	D	Hull	Hull	Hull	
	Illinois Traction Co	H				
64	Bloomington & Normal Railway & Light Co	GTD	Bloomington, El Paso, Gridley, Normal.	Bloomington	Bloomington	
65	Do		Meadows, Morton, Lexington, Tremont.	Lexington	Lexington	
66	Consumers Water & Light Co	D	Marseilles	Marseilles		
67	Cairo Railway & Light System	GD	Cairo	Cairo	Cairo	
68	Citizens Lighting Co	D	La Salle	La Salle	La Salle	
69	Clinton Gas & Electric Co	GD	Clinton and Fulton	Clinton	Clinton	
70	Danville Street Railway & Light Co	GD	Tilton, Westville, Georgetown, and Sidell.	Danville	Danville	
71	Danville, Urbana & Chain Ry			do		
72	Decatur Railway & Light Co	GTD		Decatur	Decatur	
73	Do			Galesburg		
74	Do			Riverton		
75	Galesburg Railway, Lighting & Power Co	GD	Abingdon	Abingdon	Abingdon	
76	Do		St. Augustine, Prairie City, and Knoxville.	Galesburg	Galesburg	
77	Jacksonville Railway & Light Co	GD	Jacksonville	Jacksonville	Jacksonville	
78	Knoxville Electric Light & Power Co	GD	Knoxville	Knoxville	Knoxville	
79	Madison County Light & Power Co	GD	Carlinsville	Carlinsville	Carlinsville	
80	Do		Granite City, Venice, Magison, Edwardsville, Worden.	Edwardsville	Edwardsville	
81	Do		do	Venice	Venice	
82	Monticello Electric Light & Power Co	GD	Monticello	Monticello	Monticello	
83	Mound City Light & Water Co	GD	Mound City	Mound City	Mound City	
84	Northern Illinois Light & Traction Co	GTD	Marseilles	Marseilles		Illinois River.
85	Do		Ottawa	Ottawa		Illinois and Michigan Canal.
86	Peoria Ry. Co			Peoria		
87	Springfield Belt Ry. Co			Springfield		
88	Urbana & Champaign Railway, Gas & Electric Co.	GTD	Champaign	Champaign	Champaign	
89	Urbana Light, Heat & Power Co	GTD	Urbana	Urbana	Urbana	
90	Kinderhook Electric Light Co	D	Kinderhook	Kinderhook		
91	Kinmundy Light Co	GD	Kinmundy, Frina, and Patoka.	Kinmundy	Kinmundy	
92	La Harpe Electric Light & Power Co	GD	La Harpe	La Harpe	La Harpe	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

ILLINOIS—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
21			1,830	3,300		2,550				
22	Private		150	200		87	$0.15	$0.0 – $0.10		M. C.
23									Illinois Traction Co.	M. C.
24			700	1,333		1,025				M. M.
25	Private	130				225				M. C.
26			300	225		275	$0.125– .06	.06– .025		M. C.
27									East St. Louis Light & Power Co.	M. Mc.
28			2,000	6,670		5,000				M. Mc.
29			7,000	12,430		10,630				M. C. Mc.
30						1,500				M. Mc.
31	Private				75	75	.125– .10			C.
32										M.
33	Private		375	400		350	.10 – .09	.09– .02		M. Mc. C.
34	Do		1,180	750		500	.10 – .07	.09– .02		M. Mc. C.
35			5,300	15,400		12,500	.10 – .06	.09– .02		M. Mc. C.
36	Private		240	180		150	.10 – .05	.09– .02		C.
37			1,600	1,200		850				Mc.
38			500	300		180				M. Mc.
39			4,800	8,250		5,300				Mc. Mc.
40			127,015	471,500		344,150				M. Mc.
41			9,880	15,700		11,700			Commonwealth Edison Co.	C.
42	Private		6,500	13,500		10,050			do	C.
43	Do		5,040	10,450		7,800			do	M.
44										Mc.
45									Illinois Traction System	C.
46			885	900		650	.125– .09	.10– .025		M. Mc. C.
47			800	550		400	.10 – .05	.10– .05		Mc. C.
48					465	370				Mc.
49	Private				92	625	.12	.12		Mc. C.
50	Do		200	200		90	.10			Mc. C.
51		60				72				Mc.
52	Private		40	35		30				Mc. C.
53			500	600		350				Mc.
54			100	225		150				Mc.
55	Private						.15 – .10	.10– .028	Abbott Light & Power Co., Petersburg.	C.
56	Do		300	520		400	.12	.08– .04		Mc. C.
57	Do		50	50		30				Mc.
58										Mc.
59			(80)	80		50				Mc.
60			325	250		125	.135			Mc. C.
61	Private				20	10	.30			Mc. C.
62	Do		150	800	400	700	.14 – .09	.09– .02		M. Mc. C.
63	Do						.12 – .08		Central Illinois Public Service Co.	Mc. C.
64			3,800	4,000		1,950				M. Mc.
65			200	190		135				Mc.
66									Northern Illinois Light & Traction Co.	Mc.
67			1,800	2,270		2,000				M. Mc.
68									Northern Illinois Light & Traction Co.	M. Mc.
69			900	500		400				Mc.
70			5,800	7,500		3,510				M. Mc.
71										M.
72			4,700	4,500		1,800				M.
73										M.
74										
75			300	300		275				M. Mc.
76			2,400	2,500		2,650				Mc.
77			625	815		1,450				M. Mc.
78			200	200		200				Mc.
79			180	241		20				M. Mc.
80			850	800		775				M. Mc.
81										M.
82			120	150		126				Mc.
83			300	250		150			Cairo Railway & Light System.	Mc.
84		5,600	1,775	2,670		2,870	.15	.05		Mc. C.
85		515	750	1,500		1,000	.15	.05		Mc. C.
86										M.
87										M.
88			3,480	4,500		2,750				M.
89			850	500		375				M. Mc.
90									Central Illinois Public Service Co.	Mc.
91			100	120		75				Mc.
92	Private		160	150		115	.20	.10		Mc. C.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY, **ILLINOIS**—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
93	Lena Electric Light & Power Co	GD	Lena and Pearl City	Lena	Lena	
94	Le Roy Electric Light, Power & Heating Co	D	Le Roy and Dawns	Le Roy		
95	Lewistown Electric Co	GD	Lewistown	Lewistown	Lewistown	
	Light & Development Co. of St. Louis	H				
96	Monmouth Public Service Co	GD	Monmouth and Kirkwood	Monmouth	Monmouth	
97	Lincoln Park Commissioners	D	Lincoln Park Boulevards	Chicago		
98	Louisville Electric Light & Water Plant	GD	Louisville	Louisville	Louisville	
99	Lovington Electric Light & Power Co	GD	Lovington	Lovington	Lovington	
100	Mackinaw Electric Light Plant	D	Mackinaw	Mackinaw	Mackinaw	
101	Mansfield Electric Co	GD	Mansfield	Mansfield	Mansfield	
102	Marengo Public Service Co	GD	Marengo	Marengo	Marengo	
103	Maroa Electric Light Co	D	Maroa	Maroa	Maroa	
104	Matherville Light & Power Co	D	Matherville	Matherville		
	Middle West Utilities Co	H				
105	Central Illinois Public Service Co		Jonesboro and Anna	Anna	Anna	
106	Do		Astoria	Astoria	Astoria	
107	Do		Augusta	Augusta	Augusta	
108	Do		Barry	Barry	Barry	
109	Do		Beardstown	Beardstown	Beardstown	
110	Do		Blue Mound	Blue Mound	Blue Mound	
111	Do		Bluffs	Bluffs	Bluffs	
112	Do		Bridgeport	Bridgeport	Bridgeport	
113	Do		Camp Point	Camp Point	Camp Point	
114	Do		Carbondale	Carbondale	Carbondale	
115	Do		Carrollton	Carrollton	Carrollton	
116	Do		Carthage	Carthage	Carthage	
117	Do		Charleston	Charleston	Charleston	
118	Do		Clayton	Clayton	Clayton	
119	Do		Edinburg	Edinburg	Edinburg	
120	Do		Findlay	Findlay	Findlay	
121	Do		Harrisburg	Harrisburg	Harrisburg	
122	Do		Havana	Havana	Havana	
123	Do		Herrin, West Frankfort, Carterville.	Herrin	Herrin	
124	Do		Ipava	Ipava	Ipava	
125	Do		Jerseyville	Jerseyville	Jerseyville	
126	Do		Johnson City	Johnson City	Johnson City	
127	Do		Kansas	Kansas	Kansas	
128	Do		Lawrenceville	Lawrenceville	Lawrenceville	
129	Do		McComb, Bushnell, Plymouth.	McComb	McComb	
130	Do		Marion	Marion	Marion	
131	Do	GTD	Mattoon	Mattoon	Mattoon	
132	Do		Meredosia	Meredosia	Meredosia	
133	Do		Mounds	Mounds	Mounds	
134	Do		Mount Sterling	Mount Sterling	Mount Sterling	
135	Do		Moweaqua	Moweaqua	Moweaqua	
136	Do		Newman	Newman	Newman	
137	Do		Oakland, Ashmore, and Kansas.	Oakland	Oakland	
138	Do		Olney	Olney	Olney	
139	Do		Pana and Assumption	Pana	Pana	
140	Do		Paris	Paris	Paris	
141	Do		McLean, Ford, and Iroquois	Paxton	Paxton	
142	Do		Pittsfield, Griggsville, Maysville.	Pittsfield	Pittsfield	
143	Do		Robinson	Robinson	Robinson	
144	Do		Roodhouse	Roodhouse	Roodhouse	
145	Do		Roseville	Roseville	Roseville	
146	Do		Rushville	Rushville	Rushville	
147	Do		St. Elmo	St. Elmo	St. Elmo	
148	Do		Sullivan	Sullivan	Sullivan	
149	Do		Taylorville, Auburn, Nekomis, Pawnee.	Taylorville	Taylorville	
150	Do		Tolono	Tolono	Tolono	
151	Do		Tower Hill	Tower Hill	Tower Hill	
152	Do		Tuscola	Tuscola	Tuscola	
153	Do		Versailles	Versailles	Versailles	
154	Do		Villa Grove and Girard	Villa Grove	Villa Grove	
155	Do		Virginia	Virginia	Virginia	
156	Do		Waverly	Waverly	Waverly	
157	Central Illinois Utilities Co		Livingston County	Watseka	Watseka	
158	Freeport Railway & Light Co	GTD	Freeport	Freeport	Freeport	Pecatonia
159	Illinois Northern Utilities Co	GD	Boone, Kane, Dekalb, McHenry Counties.	Belvidere	Belvidere	
160	Do	GD	Ogle, Lee, Boone Counties	Dixon	Dixon	
161	Do	GD	Whiteside County	Fourteenth Avenue	Sterling	
162	Do	GD	Geneseo	Geneseo	Geneseo	
163	Do	GD	Harvard	Harvard	Harvard	
164	Do	GD	Dekalb, Kendall, La Salle Counties.	Mendota	Mendota	
165	Do	GD	Ohio	Ohio	Ohio	
166	Do	GD	McHenry, La Salle Counties	Oregon	Oregon	Rock River
167	Do	GD	Whiteside, Dekalb Counties.	Sterling No. 1	Sterling	do
168	Do	GD	Walnut	Walnut	Walnut	
169	(Lessor, Rock River Light & Power Co.)	L	Henry County	Government dam	Sterling	Rock River
170	Tri-County Light & Power Co	D	Aledo, Alpha, Alexis, Arpee, Woodhull, Rio, New Windsor, Viola, Seaton, New Boston, and Joy.	Aledo		
171	Moline Water Power Co			Moline		
172	Momence Utilities Co	GD	Momence	Momence	Momence	
173	Moore & Gayton Light Plant		Rockton	Rockton		Rock River
174	Mount Carmel Public Utility & Service Co	GD	Mount Carmel	Mount Carmel	Mount Carmel	
175	Mount Carroll Electric Light Co	GD	Mount Carroll	Mount Carroll	Mount Carroll	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

ILLINOIS—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
93	Private		200	250		175	$0.12 –$0.08	$0.10 –$0.04		Mc. C.
94							.20 – .05	.10 – .0475	Bloomington & Normal Railway & Light Co.	Mc. C.
95			200	200		150	.11 – .085		Canton Gas & Electric Co.	Mc. C.
96	Private		1,200	870		800	.10 – .03	.08 – .025		M. Mc. C.
97									Sanitary District of Chicago	Mc.
98	Private		250	205		125	.15			Mc. C.
99	Do		300	210		190	.15	.10		C.
100	Private						.125– .08	.125– .04	Illinois Traction System	Mc. C.
101	Do		200	210		60				Mc. C.
102	Do		250	225		150	.135– .08	.08 – .06		Mc. C.
103									Illinois Traction Co.	Mc. C.
104									Rock Island Southern Railway Co.	Mc.
105	Private		525	1,500		665				M. Mc. C.
106			200	200		200				Mc.
107			100	90		55				Mc.
108			125	125		120				Mc.
109			300	970		820				Mc.
110			250	150		160				Mc.
111			85	85		45				Mc.
112			150	80		75				Mc.
113			65	65		75				Mc.
114			500	100		300				Mc.
115			450	240		210				Mc.
116			300	150		125				Mc.
117			600	500		270				Mc.
118			100	80		60				Mc.
119			200	(90)		56				Mc.
120	Private		80	100		75				Mc. C.
121			375	400		250	.10	.10 – .03		Mc.
122			450	330		230				Mc.
123			300	970		730				Mc.
124			175	125		75				Mc.
125			425	100		175				Mc.
126			375		250	180				Mc.
127			100	100		60				Mc.
128			200	100	235	275				Mc.
129			600	460		425				Mc.
130			500	750		630				Mc.
131			1,525	1,500		1,575				Mc.
132			100	100		30				Mc.
133			1,050	1,200		140				Mc.
134			180	140		108				Mc.
135			360	315		325				Mc.
136			200	(150)		100				Mc.
137			180	200		160				Mc.
138			700	400		370				Mc.
139			500	400		360				Mc.
140			750	1,470		1,040				Mc.
141	Private		475	600		470	.12 – .05	.08 – .02		Mc. M. C.
142			200	200		240				Mc.
143					500	400				Mc.
144			200	250		190				Mc.
145			125	(100)		75				Mc.
146			270	250		180				Mc.
147			300	175		90				Mc.
148			200	380		475				Mc.
149			1,600	1,100	1,000	850				Mc.
150			100	75		75				Mc.
151			80	60		45				Mc.
152	Private		550	650		550				Mc. C.
153			50	50		60				Mc.
154			250	(160)		100				Mc.
155			200	100		85				Mc.
156			75	60		30				Mc.
157	Private		1,200	2,350		1,750	.10 – .05	.08 – .02		Mc. C.
158	Do	1,000	1,450	2,000		2,050	.135– .07	.10 – .01	Illinois Northern Utilities Co.	Mc. C.
159	Do		1,050	850		515	.135– .07	.10 – .03	Public Service Co. of Northern Illinois.	Mc. C.
160	Do	900	400	250		800	.135	.10 – .03	do	Mc. C.
161	Do		400	790		500	.15 – .08	.10 – .03	do	Mc. C.
162	Do		160	275		140	.135– .075	.15 – .05		M. Mc. C.
163	Do				550	350	.14 – .065	.08 – .04	Public Service Co. of Northern Illinois.	Mc. C.
164	Do		500	515		325	.13 – .09	.10 – .03	do	Mc. C.
165	Do		150	60		60	.15 – .10	.15 – .04		Mc. C.
166	Do	360	325	500		600	.135	.10 – .03	Freeport Railway & Light Co.	Mc. O. C.
167	Do	170	185	430		600	.135	.10 – .03	Clinton Gas & Electric Co.	Mc. C.
168	Do		90	100		50	.15 – .10			Mc. C.
169	Government	2,200				1,800	.135	.10 – .03		Mc. O. C.
170									Edwards River Power Co.	Mc.
171										O.
172			450	450		300				Mc.
173	Private	80			35	30	.10			C.
174	Do		600	500		375	.08 – .04	.03		M. Mc. C.
175	Do		120	240		110	.20 – .11	.11		Mc. C.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY, ILLINOIS—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
176	Mount Pulaski Electric Light & Power Co	GD	Mount Pulaski and Kenney	Mount Pulaski	Mount Pulaski	
177	Murphysboro Waterworks & Electric & Gas Light Co.	GD	Murphysboro	Murphysboro	Murphysboro	
178	Nashville Electric Light Co	GD	Washington County	Nashville	Nashville	
	National Gas, Electric Light & Power Co	H				
179	Quincy Gas, Electric & Heating Co	GD	Quincy	Quincy	Quincy	
180	Nauvoo Electric Light & Power Co	D	Nauvoo	Nauvoo	Nauvoo	
	New Jersey General Sec. Co	H				
181	Lincoln Water & Light Co	GD	Lincoln	Lincoln	Lincoln	
182	Northwestern Barb Wire Co	GTD	Rock Falls	Rock Falls		
183	Odin Coal Co. Light Plant	GD	Odin	Odin	Odin	
184	Okawville Light & Ice Co		Okawville	Okawville	Okawville	
185	Palmyra Electric Light Plant	GD	Palmyra	Palmyra	Palmyra	
186	Panton, V. W	GD	South Elgin	South Elgin	South Elgin	Fox River
187	Pecatonica Electric Light Co	GD	Pecatonica	Pecatonica	Pecatonica	
188	Peoples Gas & Electric Co	GD	Savanna and Sabula, Iowa	Savanna	Savanna	
189	Peotone Electric Co	D	Peotone	Peotone	Peotone	
190	Pinckneyville Light, Ice & Power Co	GD	Pinckneyville	Pinckneyville	Pinckneyville	
191	Public Service Co. of Northern Illinois	GD	Northern Illinois	Blue Island	Blue Island	
192	Do	GD	do	Cornell	Cornell	
193	Do	GD	do	Evanston	Evanston	
194	Do	GTD	do	Joliet		
195	Do	GTD	do	Kankakee		
196	Do	GTD	do	Lacon	Lacon	
197	Do	GTD	do	Maywood	Maywood	
198	Do	GTD	do	Oak Park	Oak Park	
199	Do	GTD	do	Pontiac	Pontiac	
200	Do	GTD	do	St. Anne	St. Anne	
201	Do	GTD	do	Streator	Streator	
202	Do	GTD	do	Waukegan	Waukegan	
203	Do	GTD	do	Wilmington		
204	Robinson Water, Light & Heat Co			Robinson		
205	Rock Island Southern Ry. Co	HGD		Matherville	Matherville	
206	Rock Island Southern R. R. Co	GD		Cameron	Cameron	
207	Rossville Electric Light Co	D	Rossville	Rossville	Rossville	
208	Royal Light & Power Co	GD	Delavan	Delavan	Delavan	
209	Sanitary District of Chicago	GTD	Cook County	Lockport	Lockport	
210	Sorento Electric Light Co	GD	Sorento	Sorento	Sorento	
211	Southern Illinois Light & Power Co	GD	Madison and St. Clair Counties.	Collinsville	Collinsville	
212	Do	GD	Macoupin County	Gillespie	Gillespie	
213	Do	GD	Greenville	Greenville	Greenville	
214	Do	GD	Montgomery and Bond Counties.	Hillsboro	Hillsboro	
215	Do	GD	do	Morrisville	Morrisville	
216	Do	GD		O'Fallon	O'Fallon	
217	Eldorado Light & Power Co	GD	Eldorado	Eldorado	Eldorado	
218	Southern Illinois Railway & Power Co	GT	Central Illinois Public Service Co.	Muddy	Muddy	
219	South Park Commissioners	GD	Chicago	Chicago	Chicago	
220	Sparta Gas & Electric Co	GD	Sparta	Sparta	Sparta	
221	Spring Valley Utilities Co	GD	Bureau County	Buda	Buda	
222	Stark County Power Co	GD	Wyoming and Bradford	Wyoming	Wyoming	
223	Stewart Electric Light & Water Co	GD	Steward	Steward	Steward	
224	Stockton Electric Co	GD	Stockton	Stockton	Stockton	
	Stone & Webster	M				
225	Dallas City Light Co	D	Dallas and Pontoosuc	Dallas City	Dallas City	
226	Stronghurst Electric Light Plant	GD	Stronghurst	Stronghurst	Stronghurst	
227	Thies, F. W., Light Plant	GD	Steeleville	Steeleville	Steeleville	
228	Toulon Light & Power Co	GD	Toulon	Toulon	Toulon	
229	Tyrone Electric Co	D	Sesser, Christopher, North City.	Christopher	Christopher	
230	United Gas & Electric Co	GD	Litchfield	Litchfield	Litchfield	
	United Light & Railways Co	H				
231	Moline, Rock Island Manufacturing Co	GT	Moline, Hampton, Rapids City, Port, Byron, Carbon Cliff, Sears, Watertown, and Rock Island.	Moline	Moline	
232	Peoples Power Co	D	do			
233	Utica Electric Light & Power Plant	GD	Utica	Utica	Utica	
234	Warfel, A. L	GD	Lanark	Lanark	Lanark	
235	Warren Light & Power Co. (Inc.)	GD	Warren	Warren	Warren	
236	Washburn Electric Light Co		Woodford and Marshall Counties.	Washburn	Washburn	
237	Washburn Heat, Light & Power Co	GD	Washburn, Wilburn & Low Point.	do	do	
238	Wataga Mills & Light Plant	GD	Wataga	Wataga	Wataga	
239	Wenona Light & Power Co	GD	Wenona	Wenona	Wenona	
240	West Chicago Park Commissioners	D	West Chicago	Chicago		
241	Western United Gas & Electric Co	GD	Dupage, Kane, and Kendall Counties.	Aurora	Aurora	
242	West Point Electric Co	GD	West Point	West Point	West Point	
243	Whitaker, Sidney, Light Plant	GD	Granville, Mark, and Standard.	Granville	Granville	
244	Wilson, R. C., & Co., Limited Plant	GD	Potomac and Henning	Potomac	Potomac	
245	Winchester Electric Co	D	Winchester	Winchester		
246	Wyanet Electric Light Co	GD	Wyanet	Wyanet	Wyanet	
247	Xenia Electric Light Co	GD	Xenia	Xenia	Xenia	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

ILLINOIS—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
176			160	125		180				Mc.
177			932	700		875				M. Mc.
178			400	400		400				Mc. C.
179			3,200	2,000		1,950	$0.135–$0.03	$0.06 –$0.006	Mississippi River Power Co...	M. Mc. C.
180									do	Mc. C.
181	Private		650	950		775	.11 – .04	.09 – .03		M. Mc. C.
182		200	100	100		120				Mc.
183			500	350		200				Mc.
184	Private		200	160		125	.125			C.
185	Do		90	90		60	.10			Mc. C.
186	Do	80				35	.10			Mc. C.
187			90	150		90				Mc.
188			750	700		525	.15 – .06	.06 – .02		Mc. C.
189	Private						.16 – .08	.16 – .04	Chicago & Interurban Ry. Co..	Mc. C.
190	Do		250	300		200				Mc. C.
191			9,200	29,330		22,000				M. Mc.
192			120	80		45				Mc.
193			1,280	1,000		645				M. Mc.
194		4,500	1,400	1,250		4,850				Mc.
195		800	750	1,020		1,690				Mc.
196			500	600		420				Mc.
197			1,750	(3,000)		2,250				M. Mc.
198			4,850	(5,000)		2,510				M. Mc.
199			690	1,050		950				M. Mc.
200			100	100		65				Mc.
201			1,000	1,500		3,375				M. Mc.
202			3,650	12,000		9,000				M. Mc.
203			300			200				Mc.
204										
205			4,000	4,000		3,000				M. Mc.
206			500	1,200		800				M. Mc.
207	Private						.14 – .092	.08 – .06	Hoopeston Gas & Electric Co..	Mc. C.
208			250	135		190	.15 – .10			Mc. C.
209		32,000				28,000				Mc.
210			150	125		80				Mc.
211	Private		1,600	1,340		1,000				M. Mc. C.
212	Do		400	402		305	.125– .06	.06 – .02		Mc. C.
213	Do									Mc. C.
214	Do		1,716	2,350		1,750				Mc. C.
215	Do		170	170		100				Mc. C.
216	Do		200	134		100				Mc. C.
217	Do		300	150		150	.10	.05		Mc. C.
218	Do		1,600	2,500		2,500				M. Mc. C.
219	Do		1,050	1,470		1,100			Sanitary District of Chicago...	Mc. C.
220	Do		230	300		300	.10 – .08	.07 – .02		Mc. C.
221			85	80		50	.15 – .03	.15 – .03	Northern Illinois Light and Traction Co.	M. Mc. C.
222			300	450		400				Mc.
223					40	45				Mc.
224	Private		300	200		150	.15 – .08	.08 – .03		Mc. C.
225							.12 – .02	.08 – .02	Mississippi River Power Co...	M. Mc. C.
226	Private				65	30	.15 – .08			Mc. C.
227			(40)	40		37½				Mc.
228	Private		230	175		125	.15 – .075	.11 – .045		Mc. C.
229	Do						.10	.10 – .018	Egyptian Electric Co	Mc. C.
230	Do		250	450		150	.13 – .06	.13 – .03		M.
231	Do		7,900	42,000		21,600	.10	.06 – .01	Moline Water Power Co	M. Mc. C.
232									Moline-Rock Island Manufacturing Co.	M. C.
233			100	75		50				Mc.
334			140	100		60				Mc.
235			200	200		225				Mc.
236	Private		175	200		125	.15 – .08			C.
237			175	175		125				Mc.
238			75	55		35				Mc.
239	Private		160	250		175	.135– .09	.10 – .03		Mc. C.
240									Sanitary District of Chicago...	Mc.
241	Private		3,500	4,288		3,200	.10 – .04	.0175	Aurora, Elgin & Chicago R. R. Co.	M. Mc. C.
242					35	25				Mc.
243			160	210		135	.15 – .07	.05 – .03		Mc. C.
244			100	90		50				Mc.
245									White-Hall Sewer Pipe & Stoneware Co.	Mc.
246	Private		150	125		50	.10	.05	Spring Valley Utilities Co.....	Mc. C.
247			85	66		37½				Mc.
	Total, A	48,650	314,338	806,736	3,852	628,363				

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY, **ILLINOIS**—Continued.

B.—MUNICIPAL PLANTS.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
248		GD	Altamont	Altamont	Altamont	
249		D	Ashland	Ashland	Ashland	
250		GD	Ashley	Ashley	Ashley	
251		GD	Atkinson	Atkinson	Atkinson	
252		GD	Aurora	Aurora	Aurora	
253		GD	Bath	Bath	Bath	
254		GD	Bloomington	Bloomington	Bloomington	
255		GD	Bunker Hill	Bunker Hill	Bunker Hill	
256		GD	Byron	Byron	Byron	
257		GD	Carlyle	Carlyle	Carlyle	
258		GD	Carmi	Carmi	Carmi	
259		GD	Casey	Casey	Casey	
260		GD	Catlin	Catlin	Catlin	
261		GD	Chadwick	Chadwick	Chadwick	
262		GD	Chandlerville	Chandlerville	Chandlerville	
263		GD	Columbia	Columbia	Columbia	
264		GD	Cowden	Cowden	Cowden	
265		GD	Decatur	Decatur	Decatur	
266		GD	Divernon	Divernon	Divernon	
267		GD	Downers Grove	Downers Grove	Downers Grove	
268		D	East Dubuque	East Dubuque	East Dubuque	
269		GD	Elburn	Elburn	Elburn	
270		GD	Fairfield	Fairfield	Fairfield	
271		GD	Farmers City	Farmers City	Farmers City	
272		GD	Fisher	Fisher	Fisher	
273		GD	Flora	Flora	Flora	
274		D	Forest Park	Forest Park	Forest Park	
275		GD	Freeburg	Freeburg	Freeburg	
276		GD	Galesburg	Galesburg	Galesburg	
277		GD	Geneva	Geneva	Geneva	
278		GD	Grayville	Grayville	Grayville	
279		GD	Greenup	Greenup	Greenup	
280		GD	Highland	Highland	Highland	
281		GD	Hinsdale	Hinsdale	Hinsdale	
282		GD	Ladd	Ladd	Ladd	
283		GD	La Salle	La Salle	La Salle	
284		GD	Lebanon	Lebanon	Lebanon	
285		D	Lockport	Lockport	Lockport	
286		GD	Lovington	Lovington	Lovington	
287		GD	Mattoon	Mattoon	Mattoon	
288		GD	McLeansboro	McLeansboro	McLeansboro	
289		GD	Manito	Manito	Manito	
290		D	Maple Park	Maple Park	Maple Park	
291		GD	Marissa	Marissa	Marissa	
292		GD	Marshall	Marshall	Marshall	
293		GD	Mascoutah	Mascoutah	Mascoutah	
294		GD	Mason City	Mason City	Mason City	
295		GD	Metropolis	Metropolis	Metropolis	
296		GD	Millstadt	Millstadt	Millstadt	
297		GD	Minier	Minier	Minier	
298		GD	Mount Olive	Mount Olive	Mount Olive	
299		GD	Naperville	Naperville	Naperville	
300		GD	New Athens	New Athens	New Athens	
301		GD	Newton	Newton	Newton	
302		GD	Oquawka	Oquawka	Oquawka	
303		GD	Palestine	Palestine	Palestine	
304		D	Paris	Paris	Paris	
305		GD	Peru	Peru	Peru	
306		GD	Princeton	Princeton	Princeton	
307		GD	Rantoul	Rantoul	Rantoul	
308		GD	Red Bud	Red Bud	Red Bud	
309		GD	Roberts	Roberts	Roberts	
310		GD	Rochelle	Rochelle	Rochelle	
311		GD	Rock Falls	Rock Falls	Rock Falls	
312		GD	St. Charles	St. Charles	St. Charles	
313		GD	Salem	Salem	Salem	
314		GD	Shawneetown	Shawneetown	Shawneetown	
315		GD	Shelbyville	Shelbyville	Shelbyville	
316		D	Sherrard	Sherrard	Sherrard	
317		GD	Springfield	Springfield	Springfield	
318		GD	Staunton	Staunton	Staunton	
319		GD	Stonington	Stonington	Stonington	
320		GD	Sullivan	Sullivan	Sullivan	
321		GD	Swansea	Swansea	Swansea	
322		GD	Table Grove	Table Grove	Table Grove	
323		GD	Toledo	Toledo	Toledo	
324		GD	Troy	Troy	Troy	
325		GD	Vandalia	Vandalia	Vandalia	
326		GD	Vermont	Vermont	Vermont	
327		GD	Waterloo	Waterloo	Waterloo	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

ILLINOIS—Continued.

B.—MUNICIPAL PLANTS.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
248	Private		300	225		175	$0.08	$0.08		Mc. C.
249									Abbott Light & Power Co.	Mc. C.
250			140	125		80				Mc.
251	Private		240	100		80	.10			Mc. C.
252			1,170	600		400				Mc.
253					25	20				Mc.
254			720	(900)		615				Mc.
255	Private		200	100		60	.125			Mc. C.
256					80	(50)				Mc.
257			375	335		225				Mc.
258			500	300		210				Mc.
259			300	350		230				Mc.
260			200	150		80				Mc.
261			75	60		55				Mc.
262			100	80		50				Mc.
263			225	60		75				Mc.
264			100	70		(50)				Mc.
265	Private		900	2,060		600				Mc. C.
266			130	120		75				Mc.
267			320	125		90				Mc.
268									Union Electric Co.	Mc.
269					30	20				Mc.
270			160	165		110				Mc.
271			200	205		125				Mc.
272			120	100		75				Mc.
273			350	250		160				Mc.
274	Private								Sanitary District of Chicago	Mc. C.
275			150	125		100				Mc.
276			600	500		250				Mc.
277	Private		310	700		400	$0.15 – .10	$0.09 – .04		Mc. C.
278			100	130		100				Mc.
279	Private		100	125		75	.10 – .07			Mc. C.
280			400	300		330				Mc.
281			400	700		500	.133	.05		Mc. C.
282			140	150		60	.125– .075	.125– .075	Spring Valley Utilities Co.	Mc. C.
283			550	150		(100)				Mc. C.
284	Private		230	225		200	.10			Mc. C.
285									Public Service Co. of Northern Illinois.	Mc.
286			300	215		125				Mc.
287	Private		300	300		150				C.
288			200	375		300				Mc.
289			80	50		50				Mc.
290	Private				20	14				Mc. C.
291			300	300		160	.10			Mc. C.
292			450	225		115				Mc. C.
293	Private		200	225		272½	.10 – .07	.06 – .02		Mc. C.
294	Do.		200	100		70				Mc. C.
295	Do.		450	585		370	.075– .03	.05 – .025		Mc. C.
296			120	100		75				Mc.
297	Private		160	150		100				Mc. C.
298			490	275		180				Mc.
299	Private		500	640		350	.10 – .075	.05		Mc. C.
300			300	125		150	.10 – .07			Mc. C.
301	Private		250	331		180	.10	.10 – .03		Mc. C.
302	Do.		125	75		33½	.12			Mc. C.
303			100	100		60				Mc.
304									Central Illinois Public Service Co.	Mc. C.
305			600	400		650				Mc.
306	Private		450	320		235	.15 – .06	.15 – .06		Mc. C.
307			200	200		125				Mc.
308			125	125		60				Mc.
309					45	33				Mc.
310			450	450		250				Mc.
311	Private		400	325		185	.13	.05 – .025		C.
312	Do.		450	400		250	.10	.06 – .04		Mc. C.
313			300	400		200				Mc.
314			220	150		100	.125– .08			Mc. C.
315			450	490		480				Mc.
316									Edwards River Power Co.	O. Mc.
317			900	750		150				Mc.
318										Mc.
319			200	160		150				Mc. C.
320	Private		300	80		80				Mc. C.
321			100	100		60				Mc. C.
322			(100)	85		45				Mc.
323			100	205		125				Mc.
324			180	175		100				Mc.
325			300	375		150				Mc.
326			200	150		120				Mc.
327			300	235		150				Mc.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

ILLINOIS—Continued.

B.—MUNICIPAL PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
328		GD	Weldon	Weldon	Weldon	
329		GD	Western Springs	Western Springs	Western Springs	
330		GD	Winnetka	Winnetka	Winnetka	
331		GD	Woodstock	Woodstock	Woodstock	

C.—ALL OTHER PLANTS.

	Chicago surface lines	H				
332	Chicago Rys. Co	G	Electric railways	California Avenue	Chicago	
333	Do		do	Western Avenue	do	
334	Chicago & West Towns Ry. Co	G	do	Oak Park	Oak Park	
335	Galesburg & Kewanee Electric Ry. Co	G	do	Wethersfield	Wethersfield	
	Illinois Traction Co	H				
336	Chicago, Ottawa & Peoria Ry. Co		do	Ottawa		
337	Quincy Ry. Co	G	do	Quincy	Quincy	
338	Kankakee Electric Ry. Co	G	do	Kankakee, No. 1	Kankakee	
339	Do		do	Kankakee, No. 2		
340	Lincoln Railway & Heating Co	G	do	Lincoln	Lincoln	
341	Peoria Railway Terminal Co	G	do	South Bartonville	South Bartonville	
	St. Louis, Iron Mountain & Southern Ry. Co	H				
342	Coal Belt Electric Ry. Co	G	do	Fordville	Fordville	
343	Sterling Hydraulic Co			Sterling	Sterling	
344	United States Arsenal	G		Rock Island	Rock Island	Mississippi River

INDIANA.

A.—PUBLIC UTILITY PLANTS.

1	Akron Light, Heat & Power Co	GD	Akron	Akron	Akron	
2	Albany Water & Light Co	GD	Albany	Albany	Albany	
	American Gas & Electric Co	H				
3	Indiana General Service Co	GD	Alexandria and vicinity	Elwood	Elwood	
4	Marion Light & Heating Co	GD	Marion and vicinity	Marion	Marion	
5	Montpelier Utilities Co	GD	Montpelier	Montpelier	Montpelier	
6	Muncie Electric Light Co	GD	Muncie and Eaton	Muncie	Muncie	
	American Public Utilities Co	H				
7	Merchants Heat & Light Co	GD	Indianapolis	Indianapolis	Indianapolis	
8	Valparaiso Lighting Co	GD	Valapraiso	Valparaiso	Valparaiso	
	American Water Works & Electric Co	H				
9	Mount Vernon Electric Light & Power Co	GD	Mount Vernon	Mount Vernon	Mount Vernon	
	Barstow, W. S., & Co	M				
10	City Electric Lighting Co	GD	Vincennes	Vincennes	Vincennes	
11	Vincennes Electric Co	GD	do	do	do	
12	Batesville Electric Light & Power Co	GD	Batesville and Oldenburg	Batesville	Batesville	
13	Berne Electric Light Co	GD	Berne	Berne	Berne	
14	Bicknell Light & Power Co	GD	Bicknell	Bicknell	Bicknell	
15	Booneville Electric Light & Power Co	GD	Booneville	Booneville	Booneville	
16	Brenan, F. F., Light Plant	D	Carthage	Carthage		
17	Brookville Electric Co	GD	Brookville	Brookville	Brookville	
18	Brown, R. A., Light Plant	GD	Gaston	Gaston	Gaston	
19	Browne Mills Electric Co. (Inc.)	GD	North Manchester	North Manchester	North Manchester	
20	Brownstown Water & Light Co	GD	Brownstown	Brownstown	Brownstown	
21	Bluffton, Geneva & Celina Traction Co	D		Bluffton		
22	Cayuga Electric Co	GD	Cayuga and Newport	Cayuga	Cayuga	
23	Chrisney Electric Light Co	GD	Chrisney	Chrisney	Chrisney	
24	Churubusco Water & Light Co	GD	Churubusco	Churubusco	Churubusco	
25	Cicero Light & Power Co	D	Cicero	Cicero		
26	Citizens Electric Co	D	Greenfield	Greenfield	Greenfield	
27	Citizens Heat, Light & Power Co	D	Winchester and vicinity	Winchester		
28	Chicago, Lake Shore & South Bend Ry. Co	GTD		Michigan City	Michigan City	
29	Clay City Lighting Co	GD	Clay City	Clay City	Clay City	
30	Claypool Electric Light Co			Claypool		
31	Clinton Electric Light & Power Co	GD	Clinton	Clinton	Clinton	
	Commonwealth Power Railway & Light Co	H				
32	Evansville Public Service Co	D	Evansville and Howell	Evansville		
33	Public Utilities Co	GTD		do		
34	Converse Light & Power Co	GD	Converse	Converse	Converse	
35	Covington Light & Water Co		Covington	Covington		
36	Crawfordsville Electric Light & Power Co			Crawfordsville		
37	Danville, Light, Heat & Power Co	GD	Danville and vicinity	Danville	Danville	
38	Dorsey Light, Heat & Power Co	GD	Shelbyville	Shelbyville	Shelbyville	
39	Electric Light & Power Plant	GD	Topeka	Topeka	Topeka	
40	Electric Works Light Plant	GD	Washington	Washington	Washington	
41	Elnora Electric Co	GD	Elnora	Elnora	Elnora	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

ILLINOIS—Continued.

B.—MUNICIPAL PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
328	Private		50	50		27½	$0.18			Mc. C.
329			250	100		100				Mc. C.
330	Private		790	950		780	$0.11 – 0.07	$0.08		Mc. C.
331	Do		450	500		475	.12 – .09	$0.12 – .05		Mc. C.
	Total, B		22,195	20,706	200	13,661				

C.—ALL OTHER PLANTS.

332			4,000	9,000		5,500				M.
333			9,600	15,000		8,850				M. Mc.
334	Private		3,300	4,330		3,250				M. Mc.
335	Do		700	950		600				M. Mc. C.
336										M.
337			1,264	2,500		1,423				M. Mc.
338			250	250		400				M. Mc.
339										M.
340			200	150		95				Mc. C.
341	Private		375	150		409				Mc. C.
342			900	500		600				M. Mc.
343		3,251								O.
344	Government	2,500				1,750			Moline Water Power Co.	C.
	Total, C	5,751	20,589	32,830		22,879				
	Grand total	54,401	357,122	860,272	4,052	664,903				

INDIANA.

A.—PUBLIC UTILITY PLANTS.

1		100	80		45				Mc.
2		200	150		60				Mc.
3		800	800		1,250	$0.10 –$0.05	$0.07–$0.015		M. Mc. P.
4		2,360	2,330		2,000				M. Mc.
5	Private	300	160		125	.125– .07	.07– .04		Mc. C.
6		4,256	13,600		10,150				Mc. M.
7		15,000	24,000		17,140				M. Mc.
8		325	200		250				M. Mc.
9		400	500		435				M. Mc.
10		900	1,475		885				M. Mc.
11		300	320		230				M. Mc.
12		1,200	650		650				Mc.
13		250	200		56				Mc.
14		300	450		350				Mc.
15		675	400		300				Mc.
16								United States Board & Paper Co.	Mc.
17		150	125		85				Mc.
18		50	45		15				Mc.
19		200	575		400				Mc.
20		160	150		110				Mc.
21									M.
22		150	100		100				Mc.
23		125	50		(25)				Mc.
24		230	80		100				Mc.
25								Noblesville Heat, Light & Power Co.	Mc.
26								Greenfield City	Mc.
27				450	400				M. Mc.
28		12,000	10,000		9,500				M. Mc.
29		250	150		90				Mc.
30									
31		504	1,360		415				Mc.
32								Public Utilities Co	M. Mc.
33		4,200	13,070		9,800	.075– .038	.05– .025		M. P.
34				(150)	90			Indiana Railways & Light Co.	Mc.
35									M.
36									
37		600	700		420				Mc.
38					35				Mc.
39				75	60				Mc.
40		800	700		700				Mc.
41	Private			50	30	.10			Mc.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

INDIANA—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
	Emanuel, Albert, Co	M				
42	Union City Electric Lighting Co	GD	Union City	Union City	Union City	
43	English Milling Co	GD	English	English	English	
44	Evansville Railways Co	HGD		Hatfield	Hatfield	
45	Evansville & Eastern Electric Ry. Co	GD		do	do	
46	Ferdinand Electric Light Co	GD	Ferdinand	Ferdinand	Ferdinand	
47	Fort Branch Electric Light Co	GD	Fort Branch	Fort Branch	Fort Branch	
48	Fort Wayne & Northern Indiana Traction Co	HGTD	Roanoke, Delphi, Lagro, Burrows, and Buck Creek.	Fort Wayne	Fort Wayne	
49	Do		do	Lafayette	Lafayette	
50	Wabash Valley Utilities Co	D	Wells County			
51	General Service Co	GD	Lafayette	Lafayette	Lafayette	
52	Greensburg Gas & Electric Co	GD	Greensburg	Greensburg	Greensburg	
53	Hanover Light & Power Co	D	Hanover	Hanover	Hanover	
54	Hawkes Electric Co	GD	Goshen and vicinity	Goshen	Goshen	Elkhart River
55	Heise Bros. & Co., Light Plant	GD	Orleans	Orleans	Orleans	
56	Home Electric Co	GD	Wakarusa	Wakarusa	Wakarusa	
57	Home Electric Light Co	GD	Holland	Holland		
58	Home Light & Water Co	GD	Bloomfield	Bloomfield	Bloomfield	
59	Huntingburg Electric Light Co	GD	Huntingburg	Huntingburg	Huntingburg	
60	Huntington Light & Fuel Co	GD	Huntington	Huntington	Huntington	
61	Hydro-Electric Light & Power Co	GD	Connersville	Connersville	Connersville	North Fork White Water.
62	Indiana Lighting Co	D	Lafayette	Lafayette	Lafayette	
63	Indiana & Michigan Electric Co	GTD	Elkhart	Elkhart	Elkhart	St. Joseph River
64	Do	GTD	South Bend	South Bend	South Bend	
65	Indianapolis Light & Heat Co	GD	Indianapolis and suburbs	Indianapolis, No. 1	Indianapolis	
66	Indiana Railways & Light Co	GTD	Kokomo and vicinity	Kokomo	Kokomo	
67	Indiana Public Service Co	GD	Aurora and Cochran	Aurora	Aurora	
68	Indiana Utilities Co	GTD	Angola, Hudson, and Waterloo.	Angola	Angola	
69	Indiana Water & Light Co	GD	Worthington	Worthington	Worthington	
70	Indianapolis & Louisville Traction Ry. Co	GT	Scottsburg	Scottsburg	Scottsburg	
71	Jasonville Water & Light Co	GTD	Coalmont, Hymera, Jasonville.	Jasonville	Jasonville	
72	Knox Electric Light & Power Co	D	Knox	Knox	Knox	
73	Ladoga Light Co	GD	Ladoga	Ladoga	Ladoga	
74	Lagrange Electric Light Co	GD	Lagrange, Ontario, Wolcottville, Rome City, Valentine.	Lagrange	Lagrange	
75	Do	GD	do	Ontario	Ontario	Pigeon River
76	Lapel Electric Light Plant			Lapel		
77	Leesburg Light & Water Co	D	Leesburg	Leesburg	Leesburg	
78	Light, Heat & Power Co	GD	Connersville	Connersville	Connersville	
79	Logansport Heating Co	GD	Logansport	Logansport	Logansport	
80	Loogootee Electric Light, Power & Water Works Co.	GD	Loogootee	Loogootee	Loogootee	
81	Lyon & Greenleaf Light Plant	GD	Ligonier	Ligonier	Ligonier	
82	Liberty Light & Power Co	D	Liberty and Richmond			
	McCaskey, W. T., & Co	M				
83	Central Indiana Water, Light, Heat & Power Plant.	D	Francesville, Monon, Medaryville.	Francesville		
84	Dugger Electric Light & Power Plant	GD	Dugger	Dugger	Dugger	
85	Pike County Electric Light Plant	GD	Petersburg	Petersburg	Petersburg	
86	Zionsville Water & Electric Light Co	D	Zionsville	Zionsville	Zionsville	
87	Madison Light & Railway Co	GTD	Madison	Madison	Madison	
88	Marion & Bluffton Traction Co	TD	Van Buren, Warren, Liberty Center.	Marion		
89	Martinsville Gas & Electric Co	GD		Martinsville	Martinsville	
90	Martinsville Light, Heat, Power & Water Co	GD	Morgantown, Brooklyn, and Martinsville.	do		
91	Mentone Electric Lght Plant	D	Mentone	Mentone		
	Middle West Utilities Co	H				
92	Bedford Light, Heat, & Power Co		Bedford	Bedford		
93	Central Indiana Lighting Co	GD	Bloomington	Bloomington	Bloomington	
94	Do		Columbus	Columbus	Columbus	
95	Corydon Light & Water Co	GD	Corydon	Corydon	Corydon	
96	Franklin Water, Light & Power Co	GD	Franklin	Franklin	Franklin	
97	Interstate Public Service Co	GD	Bedford	Bedford	Bedford	
98	Do	GD	Crown Point and Lowell	Crown Point	Crown Point	
99	Do	GD	Fowler	Fowler	Fowler	
100	Do	GD	Goodland	Goodland	Goodland	
101	Do	GD	Greenwood	Greenwood	Greenwood	
102	Do	GD	Lebanon	Lebanon	Lebanon	
103	Do	GD	Monticello	Monticello	Monticello	
104	Do	GD	Newcastle	Newcastle	Newcastle	
105	Do	GD	Remington	Remington	Remington	
106	Do	GD	Salem	Salem	Salem	
107	Do	GD	Seymour	Seymour	Seymour	
108	Do	GD	Shelbyville	Shelbyville	Shelbyville	
109	Louisville & Northern Railway & Lighting Co.	GD	Charleston and Sellersburg,	Charleston	Charleston	
110	Southern Indiana Power Co	GD	Bedford, Oolitic, and Bloomington.	Williams	Williams	East Fork White River.
111	United Gas & Electric Co	GTD	New Albany and vicinity	New Albany	New Albany	
112	(Lessor, Indianapolis Col. & Southern Traction Co.).	L	Edinburg	Edinburg	Edinburg	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

INDIANA—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
42			450	425		350			Greenville Light & Power Co.	Mc.
43			80	80		40				Mc.
44			800	1,670		500				Mc.
45			800	670		375				Mc.
46			50	52		120				Mc.
47			200	80		100				Mc.
48			4,900	29,330		22,000				Mc.
49			2,400	2,830		2,000				Mc.
50							$0.10 -$0.06	$0.06-$0.02	Fort Wayne & Northern Indiana Traction Co.	C. Mc.
51			2,000	2,000		1,600				M. Mc.
52					(680)	405				M.
53									Madison Light & Railway Co.	Mc.
54	Private	1,100	800	670		1,350	.06 - .045	.04- .0175		C. Mc.
55			360	160		135				Mc.
56					75	30				Mc.
57					25	23				C. Mc.
58			450	285		225				Mc.
59			300	250		175				Mc.
60			1,000	1,200		900				M.
61	Private	375	500	670	380	1,125	.09 - .02	.02		C. Mc. P.
62									Fort Wayne & North Indiana Traction Co.	M. Mc.
63		1,300				650	.11	.011- .06		M.O.P.Mc.
64			(11,000)	13,330		10,600				M. Mc.
65			12,100	40,900		30,200				Mc.
66			3,840	9,750		6,500				M. Mc.
67			250	350		320				M. Mc.
68			400	650		350				Mc.
69			200	110		75				Mc.
70			1,200	1,500		1,200				M. Mc.
71			450	450		300				M. Mc.
72									Plymouth Electric Light & Power Co.	Mc.
73			125	101		120				Mc.
74			140	150		235				Mc.
75	Private	260				240				Mc. P. C.
76										
77									Winona Interurban Ry. Co.	Mc.
78			960	1,145		840				M. Mc.
79			1,800	1,830		1,500				Mc.
80			200	200		180				Mc.
81			(400)	580		300				Mc.
82							.13 - .06	.05	Richmond Light, Heat & Power Co.	C. Mc.
83									Interstate Public Service Co.	Mc.
84					200	110				Mc.
85					225	150				Mc.
86										Mc.
87			550	825		650				M. Mc.
88									Marion Lighting & Heating Co.	Mc.
89			500	500		425				Mc.
90	Private		600	800		875	.03	.06 - .015		Mc. C.
91									Winona Interurban Ry. Co.	C. Mc.
92										M.
93			1,600	800		445				Mc.
94			250	1,670		1,250				M. Mc.
95			160	260		(150)				Mc.
96			400	500		400				M. Mc.
97			1,100	870		600				Mc.
98			350	450		300				Mc.
99			300	360		360				Mc.
100			175	150		120				Mc.
101			200	120		90				Mc.
102			1,450	300	650	720				P. Mc.
103		400	300	250		400	.10	.11 - .04		Mc.
104			1,048	1,300		800				Mc.
105			100	135		60				Mc.
106			225	125		100				Mc.
107			500	400		300				Mc.
108			1,000	900		675			United Gas & Electric Co.	M. Mc.
109			80	60		45				Mc.M.O.C.
110	Private	4,000	2,442	4,000		8,000	.10			
111			1,500	2,830		1,850				Mc.
112			3,300	3,300		2,100				Mc.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

INDIANA—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
113	Mooresville Utilities Co	D	Mooresville	Mooresville	Mooresville	
114	Morgantown Electric Light Co	GD	Morgantown	Morgantown	Morgantown	
115	Mulberry Light & Power Co	D	Mulberry	Mulberry	Mulberry	
116	Newburg Electric Light Plant	GD	Newburg	Newburg	Newburg	
117	Noblesville Heat, Light & Power Co	HGD	Arcadia, Lapel, Noblesville	Noblesville	Noblesville	
118	North Judson Electric Co	D	North Judson	North Judson	North Judson	
119	Oakland City Electric Light & Power Co	GD	Oakland	Oakland	Oakland	
120	Oldenburg Electric Light, Power & Water Works Co.	D	Oldenburg	Oldenburg	Oldenburg	
121	Owensville Light Co	GD	Owensville	Owensville	Owensville	
122	Plymouth Electric Light & Power Co	GD	Plymouth, Walkerton, Culver.	Plymouth	Plymouth	
123	Poseyville Light & Power Co	GD	Poseyville	Poseyville	Poseyville	
124	Princeton Light & Power Co	GD	Princeton	Princeton	Princeton	
125	Pulse & Porter Electric Plant	GD	Hope	Hope	Hope	
126	Putnam Electric Co	GD	Greencastle	Greencastle	Greencastle	
127	Roachdale Electric Light & Power Co	GD	Roachdale and Bainbridge	Roachdale	Roachdale	
128	Rochester Electric Light, Heat & Power Co	GD	Rochester and Argos	Rochester	Rochester	
129	Rockport Water Works Co	GD	Rockport	Rockport	Rockport	
130	Royal Electric Light Co. (Ltd.)	GD	Royal Center	Royal Center	Royal Center	
131	Sanderson, R. E., Light Plant	GD	Orland	Orland	Orland	
132	Sheridan Water, Light & Heat Co	GD	Sheridan	Sheridan	Sheridan	
133	Silver Lake Lighting Plant	GD	Silver Lake	Silver Lake	Silver Lake	
134	Spencer Light, Power, Heat & Water Co	GD	Spencer and Gosport	Spencer	Spencer	
135	Star Milling & Electric Co	GD	Howe	Howe	Howe	
136	Sullivan Electric Co	GD	Farmersburg, Sullivan, and Shelburn.	Sullivan	Sullivan	
137	Summitville Electric Light & Power Co	D	Summitville	Summitville	Summitville	
138	Syracuse Power & Light Co	GD	Syracuse and Milford	Benton	Benton	
139	Terre Haute, Indianapolis & Eastern Traction Co	HGTD	Terre Haute, Brazil, Knightstown, Harmony, Staunton and Seelyville.	Brazil		
140	Do	HGTD		Cherry Street		
141	Do	HGTD		Mulberry Street		
142	Do	HGTD		Richmond	Richmond	
143	Indianapolis & Eastern Ry. Co	GD		Greenfield	Greenfield	
144	Do	GD		Spring Lake	Spring Lake	
145	Indianapolis Traction & Terminal Co	L		Indianapolis	Indianapolis	
146	(Indianapolis & Northwestern Traction Co.)	L		Lebanon	Lebanon	
147	Thompson, T. H., Co., Light Plant			Milan		
148	Union Traction Co. of Indiana	GD	Pendleton, Middletown, Summitville, Selma, Bunker Hill, Carmel, York town, Atlanta.	Eaton	Eaton	
149	Do	GD		Newcastle	Newcastle	
150	Do	GD		Winchester	Winchester	
151	Traction Light & Power Co	D	Walton	Anderson	Anderson	
152	Union Water, Light & Power Co	GD	Bourbon	Bourbon	Bourbon	
	Union Gas & Electric Corporation of Connecticut	H				
153	Richmond Light, Heat & Power Co	GD	Liberty Light & Power Co	Richmond	Richmond	
	United Light & Railways Co	H				
154	Laporte Gas & Electric Co	GD	Laporte & Westville	Laporte	Laporte	
	United Gas Improvement Co. (The)	H				
155	Northern Indiana Gas & Electric Co	GTD	Hammond, Indiana Harbor, Whiting, and Michigan City.	Hammond	Hammond	
156	Do	GTD	do	Michigan City	Michigan City	
	United Service Co	H				
157	Wabash Water & Light Co	GD	Wabash	Wabash	Wabash	
	United States Steel Corporation	HGT	Gary Heat, Light & Water Co.			
158	Gary Heat, Light & Water Co	D	Gary	Gary	Gary	
159	United States Board & Paper Co			Carthage		
160	Versailles Mill & Electric Co	GD	Versailles	Versailles	Versailles	
161	Vincennes Traction Co	HGD		Seminary Street	Vincennes	
162	Vincennes Traction & Light Co			Vincennes		
163	Waynetown Electric Co	D	Waynetown	Waynetown		
164	West Baden Water, Light, Heat & Power Co	GD	West Baden	West Baden	West Baden	
	West Indiana Utilities Co	GD				
165	(Lessor, Brazil Electric Co.)	L	Brazil	Brazil	Brazil	
166	Winona Electric Light & Water Co	GD	Warsaw and Winona Lake	Warsaw	Warsaw	
167	Winona Interurban Railway Co	GD	Leesburg, Chili, and Mentone	Winona Lake	Winona Lake	
168	Zilick & Shafer Milling Co	D	Haubstadt	Haubstadt	Haubstadt	

B.—MUNICIPAL PLANTS.

169		GD	Albion	Albion	Albion	
170		GD	Anderson	Anderson	Anderson	
171		D	Argos	Argos		
172		GD	Ashley	Ashley	Ashley	
173		GD	Attica	Attica	Attica	
174		GD	Auburn	Auburn	Auburn	
175		GD	Bluffton	Bluffton	Bluffton	
176		GD	Bremen	Bremen	Bremen	
177		GD	Butler	Butler	Butler	
178		GD	Cambridge City	Cambridge City	Cambridge City	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

INDIANA—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
113										Mc.
114			85	80		(50)				Mc.
115										Mc.
116			180	125		68				Mc.
117			650	1,050		825				M. Mc.
118							$0.10	$0.10 –$0.033	Plymouth Electric Light Co.	Mc. C.
119			280	400		250				Mc.
120									Batesville Electric Light & Power Co.	Mc.
121			160	170		60				Mc.
122			340	775		550				Mc.
123			200	100		50				Mc.
124			920	1,160		825				Mc.
125			200	160		110				Mc.
126			500	400		320				M.
127			110	125		100				Mc.
128			800	1,000		300				M. Mc.
129			300	300		375				Mc.
130			100	125		50				Mc.
131		116				45				Mc.
132			300	150		175				Mc.
133			80	50		35				Mc.
134			300	325		225				M. Mc.
135	Private	140				105	$0.10– .07			Mc. P. C.
136			800	600		450				M. Mc.
137									Union Traction Co. of Indiana	Mc.
138		200	130	125		200				Mc.
139										M. Mc.
140			7,000	17,250		16,800				M. Mc.
141										M. Mc.
142			1,125	1,000		700				Mc.
143			3,000	3,350		2,500				M. Mc.
144			(1,000	1,200		1,000				Mc.
145										Mc. M.
146										M.
147										
148			900	1,500		1,080				M. Mc.
149			1,200	4,000		3,000				M. Mc.
150			1,200	1,600		1,000				M. Mc.
151			6,400	10,830		5,000			Union Traction Co. of Indiana	M. Mc.
152			80	175		105				Mc.
153			1,180	1,730		840				M. Mc.
154			2,000	2,330		1,662				M. Mc.
155			4,664	14,066		11,800			Chicago, Lake Shore & South Bend Ry. Co.	M. Mc.
156	Private		1,400	1,500		1,350	.10– .045	.08– .018	.....do	M. C. Mc.
157			1,100	2,000		1,500				M. Mc.
158									Illinois Steel Co	Mc.
159										
160			60	50		(30)				Mc.
161			450	400		300				Mc.
162										M.
163									Crawfordsville Electric Light & Power Co.	Mc. C.
164	Private		375	230		80				Mc. C.
165	.....do		500	450		450	.03	.08– .04	Terre Haute, Ind., and Eastern Traction Co.	Mc. C.
166			450	537		325				Mc.
167			1,200	1,200		1,200				M. Mc.
168										Mc.
	Total, A	7,891	154,789	277,361	2,960	221,189				

B.—MUNICIPAL PLANTS.

169			200	130		105				Mc.
170			1,550	2,455		1,937	$0.06–$0.03	$0.04–$0.015		Mc.
171									Rochester Electric Light, Heat & Power Co.	Mc.
172			80	60		35				Mc.
173			600	550		310				
174			700	610		400				Mc.
175			1,050	925		600				Mc.
176			350	225		150				Mc.
177					245	150				Mc.
178			300	375		300				Mc.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

INDIANA—Continued.

B.—MUNICIPAL PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
179		GD	Cannelton	Cannelton	Cannelton	
180		D	Coatesville	Coatesville		
181		GD	Columbia City	Columbia City	Columbia City	
182		GD	Columbus	Columbus	Columbus	
183		GD	Covington	Covington	Covington	
184		GD	Waynetown, Linden, Crawfordsville.	Crawfordsville	Crawfordsville	
185		GD	Dana	Dana	Dana	
186		GD	Decatur	Decatur	Decatur	
187		GD	Edinburg	Edinburg	Edinburg	
188		GD	Etna Green	Etna Green	Etna Green	
189		GD	Fort Wayne	Fort Wayne	Fort Wayne	
190		GD	Frankfort	Frankfort	Frankfort	
191		D	Frankton	Frankton		
192		GD	Garrett	Garrett	Garrett	
193		GD	Gas City	Gas City	Gas City	
194		GD	Goshen	Goshen	Goshen	
195		GD	Greenfield	Greenfield	Greenfield	
196		GD	Hagerstown	Hagerstown	Hagerstown	
197		GD	Hobart	Hobart	Hobart	
198		GD	Huntington	Huntington	Huntington	
199		GD	Jasper	Jasper	Jasper	
200		GD	Kendallville	Kendallville	Kendallville	
201		GD	Knightstown	Knightstown	Knightstown	
202		D	Lawrenceburg	Lawrenceburg	Lawrenceburg	
203		GD	Linton	Linton	Linton	
204		GD	Logansport	Logansport	Logansport	
205		D	Marion	Marion		
206		GD	Martinsville	Martinsville	Martinsville	
207		D	Middletown	Middletown		
208		D	Mishawaka	Mishawaka		
209		GD	Mitchell	Mitchell	Mitchell	
210		GD	Monroeville	Monroeville	Monroeville	
211		GD	Montezuma	Montezuma	Montezuma	
212		GD	Nappanee	Nappanee	Nappanee	
213		GD	Newcastle	Newcastle	Newcastle	
214		GD	New Harmony	New Harmony	New Harmony	
215		GD	North Vernon	North Vernon	North Vernon	
216		GD	Osgood	Osgood	Osgood	
217		GD	Oxford	Oxford	Oxford	
218		GD	Paoli	Paoli	Paoli	
219		D	Pendleton	Pendleton		
220		GD	Peru and Crow Hill	Peru	Peru	
221		GD	Pierceton	Pierceton	Pierceton	
222		GD	Portland	Portland	Portland	
223		GD	Rensselaer	Rensselaer	Rensselaer	
224		GD	Richmond	Richmond	Richmond	
225		GD	Rockville	Rockville	Rockville	
226		GD	Rushville	Rushville	Rushville	
227		D	Scottsburg	Scottsburg		
228		GD	South Whitley	South Whitley	South Whitley	
229		GD	Tell City	Tell City	Tell City	
230		GD	Thorntown	Thorntown	Thorntown	
231		GD	Tipton	Tipton	Tipton	
232		GD	Veedersburg	Veedersburg	Veedersburg	
233		GD	Vevay	Vevay	Vevay	
234		D	Walkerton	Walkerton		
235		GD	Warren	Warren	Warren	
236		D	Waynetown	Waynetown		
237		GD	Williamsport	Williamsport	Williamsport	
238		GD	Winamac	Winamac	Winamac	

C.—ALL OTHER PLANTS.

	Chicago, New York Electric Air Line Ry. Co	H				
239	Gary Interurban R. R. Co	G	Electric railway	West Gary		
240	Consolidated Indiana Coal Co	HG	Mining	Peerless mine	S. 18, T. 8 N., R. 8 W.	
241	Interstate Mining Co	G	do	Glendora mine	S. 23, T. 8 N., R. 9 W.	
242	St. Clair Coal Co	G	do	St. Clair mine	S. 25, T. 9 N., R. 9 W.	
243	Fort Wayne & Northwestern Ry. Co	G	Electric railway	Kendallville	Kendallville	
244	Fort Wayne & Springfield Ry. Co	G	Electric railways	Decatur	Decatur	
245	Indianapolis & Cincinnati Traction Co	G	do	Rushville	Rushville	
246	Muncie & Portland Traction Co., The	G	Electric railway	Portland	Portland	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

INDIANA—Continued.

B.—MUNICIPAL PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
179	Private		300	205		160	$0.11–$0.07	$0.07–$0.045		C. Mc.
180										Mc.
181			600	410		300				Mc.
182			600	330		150				Mc.
183			300	150		165				Mc.
184			1,050	1,330		1,000				Mc.
185			150	150		90				Mc.
186			1,100	800		500				Mc.
187			250	220		75				Mc.
188					40	28				Mc.
189			2,000	3,330		2,500				Mc.
190			1,300	1,000		1,000				Mc.
191									Indiana General Service Co.	Mc.
192			400	375		300				Mc.
193			400	400						Mc.
194			400	300		100				Mc.
195			500	(980)		585				Mc.
196			(100)	120		40				Mc.
197			300	400		225				Mc.
198			400	150		250				Mc.
199			400	520		375				Mc.
200			610	305		225				Mc.
201			350	330		(200)				Mc.
202										Mc.
203			550	600		500				Mc.
204		200	2,200	2,320		1,700				Mc.
205									Marion Light & Heating Co.	Mc.
206				150		110				Mc.
207									Union Traction Co. of Indiana.	Mc
208									Indiana & Michigan Electric Co.	Mc.
209			300	250		100				Mc.
210			100	100		60				Mc.
211			250	150		100				Mc.
212			400	300		175				Mc.
213			450	450		(270)				Mc.
214			100	100		100				Mc.
215			450	500		260				Mc.
216			150	125		75				Mc.
217			250	125		90				Mc.
218			170	200		125				Mc.
219									Union Traction Co. of Indiana.	Mc.
220			1,000	1,100		700				Mc.
221	Private		100	95		90	.08– .06			Mc. C.
222			850	400		825				Mc.
223			350	300		350				Mc.
224			2,020	1,770		3,000				Mc.
225			300	350		180				Mc.
226						250				Mc.
227									Indianapolis & Louisville Traction Ry. Co.	Mc.
228			275	275		155				Mc.
229			550	300		200				Mc.
230			300	210		135				Mc.
231			1,000	750		450				Mc.
232			120	150		110				Mc.
233			250	250		160				Mc.
234									Plymouth Electric Light & Power Co.	Mc.
235			150	200		120				Mc.
236									Crawfordsville	Mc.
237			200	(240)		145				Mc.
238			130	85		50				Mc.
	Total, B	200	29,305	28,980	285	22,580				

C.—ALL OTHER PLANTS.

239			400	1,330		1,000				M. Mc.
240	Private		600	(420)		250				C.
241	Do		600	(250)		150				C.
242	Do		600	(250)		150				C.
243			1,200	2,000		1,600				Mc.
244			680	675		450				M. Mc.
245			1,000	2,670		3,000				M. Mc.
246			600	600		600				M. Mc.
	Total, C		5,680	8,195		7,200				
	Grand total	8,091	189,774	314,536	3,245	250,969				

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY, IOWA.

A.—PUBLIC UTILITY PLANTS.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
1	Adel Light & Power Co	GD	Dallas County	Adel	Adel	No. Raccoon River
2	Akron Milling Co	GD	Akron	Akron	Akron	Big Sioux River
	American Gas Co., The	H				
3	Cedar Valley Electric Co	GD	Charles City	Charles City	Charles City	
4	Do		Clarksville	Clarksville	Clarksville	
5	Do	GD	Hampton	Hampton	Hampton	
6	Do	GD	Parkersburg	Parkersburg	Parkersburg	
7	Citizens Gas & Electric Co	GD	Waterloo	Waterloo	Waterloo	
8	Anita Electrical Light & Power Co	D	Anita	Anita	Anita	
9	Armstrong Cement Works	GD	Armstrong	Armstrong	Armstrong	
10	Audubon County Electric Co	GD	Audubon, Exira, Hamlin	Audubon	Audubon	
11	Bedford Light, Heat & Power Co	D	Bedford	Bedford	Bedford	
12	Bettendorf Improvement Co	D	Bettendorf	Bettendorf	Bettendorf	
13	Britt Light & Power Co	GD	Britt	Britt	Britt	
14	Buckley, George C	GD	Menlo	Menlo	Menlo	
15	Burlington Railway & Light Co., The	HGTD	Burlington and West Burlington.	Burlington	Burlington	
16	Do	GD	Keoto	Keoto	Keoto	
17	What Cheer Electric Light & Power Co	D	What Cheer	What Cheer	What Cheer	
18	Burt Light & Power Co	GD	Burt	Burt	Burt	
	Byllesby, H. M., & Co	M				
19	Ottumwa Railway & Light Co	GTD	Ottumwa	Ottumwa	Ottumwa	
20	Cambridge Electric Light Co	D	Cambridge	Cambridge	Cambridge	
21	Camp, Charles C., Electric Light Plant	GD	Reinbeck	Reinbeck	Reinbeck	
22	Cantril Telephone & Electric Light Co	GD	Cantril	Cantril	Cantril	
23	Carroll Light & Heat Co	GD	Carroll	Carroll	Carroll	
24	Cascade Electric Light & Power Co	GD	Cascade	Cascade	Cascade	
25	Cedar Valley Power Co	GD	Nashua	Nashua	Nashua	
26	Centerville Light & Traction Co	GTD	Centerville	Centerville	Centerville	
27	Central Iowa Light & Power Co	HGD	Fort Dodge, Ankeny, Lehigh and vicinity.	Fraser	Fraser	
28	Do	GD	Lake City	Lake City	Lake City	
29	Calhoun County Public Service Co	GD	Rockwell City	Rockwell City	Rockwell City	
30	Cherokee Electric Light Co	GD	Cherokee	Cherokee	Cherokee	
	Chicago, Rock Island & Pacific Ry. Co	H				
31	Consolidated Ind. Coal Co	GD	Des Moines and vicinity	Melcher	Melcher	
32	Citizens Light, Heat & Power Co	GD	Eagle Grove and Goldfield	Eagle Grove	Eagle Grove	
33	Clear Lake Electric Light & Power Co	GD	Clear Lake	Clear Lake	Clear Lake	
34	Clinton Gas & Electric Co. of Iowa	GD	Clinton and Jackson Counties.	Clinton	Clinton	
35	Coin Electric Light & Power Co	D	Coin	Coin	Coin	
36	Colfax Springs Ry. Co	GD	Colfax	Colfax	Colfax	
37	Canley, J. B	GD	Lake Mills	Lake Mills	Lake Mills	
	Continental Gas & Electric Corporation	H				
38	Artificial Ice, Power, Heat & Light Co	GD	Fremont and Page Counties.	Shenandoah	Shenandoah	
39	Avoca Electric Light & Power Co	GD	Avoca and Shelby	Avoca	Avoca	
40	Cass County Light & Power Co	D	Griswold, Elliott, and Grant.	Griswold	Griswold	
41	Iowa Gas & Electric Co	GD	Missouri Valley, Magnolia, and Logan.	Missouri Valley	Missouri Valley	
42	Malvern Light & Power Co	GD	Malvern and Tabor	Malvern	Malvern	
43	Red Oak Electric Co	GD	Oakland, Emerson, etc	Oakland	Oakland	
44	Do	GD	Staunton and Red Oak	Red Oak	Red Oak	
45	Creston Mutual Electric Light, Heat & Power Co	GD	Creston	Creston	Creston	
46	Curtis, W. A., Electric Light Plant	D	Cambridge	Cambridge	Cambridge	
47	De Witt Electric Light & Power Co	GD	De Witt	De Witt	De Witt	
48	Duncombe Light & Power Co	D	Duncombe	Duncombe	Duncombe	
49	Dunlap Electric Light & Power Co	GD	Dunlap	Dunlap	Dunlap	
50	Dyersville Light & Water Co	GD	Dyersville	Dyersville	Dyersville	
51	Eastern Iowa Light & Power Co	GD	Jones County and Ohio	Anamosa		
52	Do	GD		Oxford Mills		
53	Electric Service Co	GD	Delaware and Linn Counties.	Central City	Central City	Wapsipimcon River
54	Emmetsburg Electric Light, Heat & Power Co	GD	Emmetsburg	Emmetsburg	Emmetsburg	
55	Enterprise Electric Light, Heat & Power Co	GD	Garner	Garner	Garner	
56	Essex Light & Power Co	D	Essex	Essex	Essex	
57	Farragut Light & Power Co	D	Farragut	Farragut	Farragut	
58	Fayette County Utilities Co	GD	Oelwein	Oelwein	Oelwein	
59	Forest City Electric Light & Power Co	GD	Forest City	Forest City	Forest City	
60	George Electric Light & Power Co	GD	George	George	George	
61	Gibson Electric Co	D	Altoona and Mitchellville	Altoona	Altoona	
62	Gilliland Estate Electric Light Plant	D	Mechanicsville	Mechanicsville	Mechanicsville	
63	Greene Electric Light & Power Co	GD	Greene	Greene		
64	Grinnell Electric & Heating Co	GD	Grinnell, Brooklyn, and Malcolm.	Grinnell	Grinnell	
65	Grundy Center Electric Co	GD	Grundy Center	Grundy Center	Grundy Center	
66	Guthrie Center Electric Light Co	GD	Guthrie Center	Guthrie Center	Guthrie Center	
67	Gutsch, E., Electric Light Plant	GD	Buffalo Center	Buffalo Center	Buffalo Center	
68	Hamburg Electric Light Co	GD	Hamburg	Hamburg	Hamburg	
69	Hann, F. M., Electric Light Plant	D	Springville	Springville	Springville	
70	Henderson Light & Power Co	GD	Jewell and Ellsworth	Jewell	Jewell	
71	Henry, S. D., Light & Power Plant	GD	Coon Rapids	Coon Rapids	Coon Rapids	
	Herald Publishing House Light Plant	H				
72	Lamoni Electric Co	GD	Lamoni, Kellerton, and Davis City.	Lamoni	Lamoni	
73	Hoag, E. W., Electric Light & Power Co	GD	Manchester	Manchester	Manchester	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

IOWA.

A.—PUBLIC UTILITY PLANTS.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from	Source of information.
1	Private	360	265	200		500	$0.14 –$0.07	$0.10 –$0.03		C. Mc.
2		100	(90)	75		135	.10	.07		C.
3		345	550	475		491				Mc.
4			80	70		50				Mc.
5	Private		250	300		250	.14 – .07	.09		C. Mc.
6			160	100		75				Mc.
7	Private		2,440	5,600		5,250	.11 – .05	.085– .025		C. M. Mc.
8							.15		City of Adair	C. M.
9	Private		150	116		75	.15 – .06	.07 – .04		C. Mc.
10	Do		150	300		150	.13 – .10			C. Mc.
11	Do						.15 – .055		Lee Electric Co	C. Mc
12								.10 – .06	Bettendorf Co. of Iowa	C. Mc.
13	Private		160	155		90	.15 – .075	.075– .05		C. Mc.
14					50	55	.15 – .12	.10		C. Mc.
15			2,400	2,300		1,950				M. Mc.
16			60	125		70				Mc.
17									Sigourney Transportation Co.	Mc.
18					35	22				Mc.
19	Private		2,000	3,350		1,600	.12 – .05	.10 – .02		C. M. Mc.
20									Central Iowa Light & Power Co.	Mc.
21			280	150		75				Mc.
22			(20)	18		15				Mc.
23			900	425		330	.15			M. Mc.
24			100	80		45				Mc.
25		350	85	75		100				Mc.
26			900	2,000		1,450				M. Mc.
27			2,100	10,000		7,500				Mc.
28			185	225		130	.045			Mc.
29			175	175		150				Mc.
30			265	395		270				Mc.
31			600	1,000		700	.03	.01		Mc. C.
32	Private		400	400		285	.12 – .10	.12 – .10		C. M. Mc.
33			250	300		200				Mc.
34			2,400	2,500		1,200				M. Mc.
35							.10		Artificial Ice, Power, Heat & Light Co.	Mc.
36										Mc.
37	Private		80	105		50				C. Mc.
38			750	750		650	.04			Mc. Mc.
39	Private		300	200		162	.15 – .08			C. Mc.
40									Red Oak Electric Co	Mc. Mc.
41	Private		900	833		625	.15 – .10	.06 – .04		C. Mc.
42	Do		300	350		275	.15 – .06	.06	Red Oak Electric Co	C. Mc. Mc.
43					80	50				Mc.
44			550	1,150		1,000				M. Mc.
45			700	1,100		700				Mc.
46							.15 – .08	.15 – .06	Central Iowa Light & Power Co.	C. Mc.
47			140	275		200				Mc.
48							.15 – .10	.08	City of Webster	C. Mc.
49					60	270				Mc.
50			160	80		90				C. Mc.
51	}	1,100	1,000	750		1,000	.15			Mc.
52										Mc.
53	Private	375				250	.18 – .09	.08 – .045	Iowa Railway & Light Co	C. Mc.
54			200	30		150				Mc.
55	Private		160	180		110	.18 – .10	.10 – .04		C. Mc.
56							.10		Artificial Ice, Power, Heat & Light Co.	Mc.
57							.15	.10 – .04	do	C.
58			400	600		400				Mc.
59			300	255		185				C. Mc.
60					95	57½				Mc.
61									Interurban Ry. Co	Mc.
62							.125– .095	.08	Wapsi Light & Power Co	C. Mc.
63		175	225	125		170				Mc.
64			650	600		275				M. Mc.
65			220	200		125				Mc.
66	Private		160	250		175				C. Mc.
67			60		25	45				Mc.
68			200	100		90				Mc.
69									Iowa Railway & Light Co	Mc.
70	Private		80	90		50	.15			C. Mc.
71	Do		100	100	25	85	.15 – .07	.10 – .05		C. Mc.
72			400	350		340	.15 – .06	.06 – .05		Mc.
73		210	(80)	100		75	.10			Mc.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY, IOWA—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
74	Holstein Electric Co	GD	Holstein	Holstein	Holstein	
75	Home Electric Co	GD	Guttenberg	Guttenberg	Guttenberg	
76	Ida Grove Electric Co	GD	Ida Grove	Ida Grove	Ida Grove	
	Illinois Traction Co	H				
77	Colfax Electric Light Co	GD	Colfax and Prairie City	Colfax	Colfax	
78	Des Moines Electric Co	GD	Des Moines Valley Junction and Carlisle.	Des Moines	Des Moines	Des Moines River
79	Montezuma Electric Light, Power & Heating Co.	D	Montezuma and New Sharon.			
80	New Sharon Public Utilities Co	D	New Sharon	New Sharon	New Sharon	
81	New Valley Junction Water & Light Co	D	Valley Junction	Valley Junction	Valley Junction	
82	Oskaloosa Traction & Light Co	GTD	Oskaloosa	Oskaloosa	Oskaloosa	
83	Interstate Power Co	GD	Cresco and Lansing	Cresco	Cresco	
84	Do	GD	Decorah	Decorah	Decorah	
85	Do	GD	Decorah, Pottsville	Decorah, No. 1		
86	Do	GD	Lansing and Wagner, S. Dak.	Decorah, No. 2		
87	Do	GD	Fairfield	Fairfield	Fairfield	
88	Do	GD	Waukon	Waukon	Waukon	
89	Interurban Ry. Co	D	Des Moines, Altoona, Mitchellville.	Des Moines	Des Moines	
90	Iowa Electric Co	GD	Marengo	Marengo	Marengo	
91	Iowa Falls Heat & Light Co	GD	Iowa Falls	Iowa Falls	Iowa Falls	
92	Iowa Gas & Electric Co	GD	Washington	Washington	Washington	
93	Iowa Railway & Light Co	GD	Belle Plaine	Belle Plaine	Belle Plaine	
94	Do	GTD	Blairstown	Blairstown	Blairstown	
95	Do	GTD	Boone and vicinity	Boone	Boone	
96	Do	GTD		Cedar Rapids	Cedar Rapids	
97	Do	GTD	Chelsea	Chelsea	Chelsea	
98	Do	GD	Grand Junction	Grand Junction	Grand Junction	
99	Do	GTD	Marengo	Marengo	Marengo	
100	Do	GTD	Marion, Springville, Viola, Stone, and vicinity.	Marion	Marion	
101	Do	GTD	Marshalltown, Tama, Le Grand, and vicinity.	Marshalltown	Marshalltown	
102	Do	GD	Nevada	Nevada	Nevada	
103	Do	GD	Perry	Perry	Perry	
104	Do	GTD	Toledo and Tama	Toledo	Toledo	
105	Iowa River Light & Power Co	GD	Hardin County	Eldora	Eldora	Iowa River
106	Do	GD	Hardin, Grundy, and Linn Counties.	Steamboat Rock	Steamboat Rock	do
107	Jefferson Electric Co	GD	Jefferson	Jefferson	Jefferson	
108	Johnson, H. E., Electric Light Plant	GD	Carson	Carson		
109	Kensett Light Co	GD	Kensett	Kensett	Kensett	
110	Keystone Electric Light & Cement Plant	GD	Keystone	Keystone	Keystone	
111	Laporte Public Utility Co	GD	Laporte City	Laporte City	Laporte City	
112	Lee Light & Power Co	GD	Adams, Page, and Taylor Counties.	Clarinda	Clarinda	
113	Le Mars City Water & Light Co	GD	Le Mars	Le Mars	Le Mars	
114	Lennox Electric Co	GD	Lennox	Lennox	Lennox	
115	Leon Electric Co	GD	Decatur and Wayne Counties.	Leon	Leon	
116	Lewis Electric Light & Power Co	GD	Lewis	Lewis	Lewis	East Nishnabotna River.
117	Light & Power Co	GD		St. Ansgar	St. Ansgar	Cedar River
118	Lime Springs Electric Light & Power Co	GD	Lime Springs	Lime Springs	Lime Springs	
119	Logan Electric Light Co	D	Magnolia and Logan	Logan	Logan	
	Lone Tree Light & Power Co	H				
120	Zimmerman Steel Co	GD	Lone Tree and Dallas	Lone Tree	Lone Tree	
121	Lost Nation Light & Power Co	GD	Lost Nation	Lost Nation	Lost Nation	
	McCaskey, W. T	M				
122	Dows Electric Light & Power Plant	GD	Dows	Dows	Dows	
123	McGregor Electric Light & Power Co	GD	McGregor and North McGregor.	McGregor	McGregor	
124	Madrid Electric Light & Power Co	D	Madrid	Madrid	Madrid	
125	Manchester Light, Heat & Power Co	GD	Manchester	Manchester	Manchester	
126	Manning Electric Light Co	GD	Manning	Manning	Manning	
127	Manson Electric Light & Power Co	GD	Manson	Manson	Manson	
128	Maquoketa Light & Power Co	GD	Maquoketa	Maquoketa	Maquoketa	
129	Marion County Electric Co	GD	Knoxville, Melcher & Dallas.	Knoxville	Knoxville	
130	Mason & Mason Electric Light Co	GD	Alton	Alton	Alton	
131	Michel, F. W., Electric Light & Power Plant	GD	Orange City	Orange City	Orange City	
132	Miller, C., & Sons Electric Light Plant	GD	Clermont	Clermont		
133	Milroy, W. K., Electric Light & Power Plant	GD	Hopkinton	Hopkinton		Maquoketa River
134	Monona Light & Power Co	D	Monona	Monona	Monona	
135	Monticello Electric Co	GD	Monticello	Monticello		
136	Moulton Electric Light Co	GD	Moulton	Moulton	Moulton	
137	Mount Ayr Light & Power Co	GD	Mount Ayr	Mount Ayr	Mount Ayr	
138	Mozingo & Mack Light Plant	GD	Clarion	Clarion	Clarion	
139	Municipal Service Co	GD	Marcus	Marcus	Marcus	
140	Nora Springs Electric Light & Mill Co	GD	Nora Springs	Nora Spring		
141	Northern Iowa Power Co	GD	Humboldt and Pocahontas Counties.	Humboldt		
142	Northwood Electric Light & Power Co	GD	Northwood	Northwood	Northwood	
	Omaha Electric Light & Power Co	H				
143	Citizens Gas & Electric Co. of Council Bluffs	D	Council Bluffs	Council Bluffs	Council Bluffs	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

IOWA—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
74					200	112½	$0.15 –$0.08	$0.10–$0.05		C.
75	Private		160	225		137½	.12 – .10	.06		C. Mc.
76			400	240		200	.15 – .10	.08– .03		C. Mc.
77			200	430		225				Mc.
78	Private	300	4,637	13,849		10,200	.09	.05		C. M. Mc.
79							.15	.08	Oskaloosa Traction & Light Co.	C. Mc.
80									Des Moines Electric Co	Mc.
81			1,300	1,370		1,100				Mc.
82			1,300			1,100				Mc.
83			300	200		150				M. Mc.
84			600	800		(480)				M.
85		2,000				1,200				M. Mc.
86										M. Mc.
87			400	225		210				M. Mc.
88			300	400		200				M. Mc.
89										Mc.
90	Private		225	150		175	.166– .05	.10– .045		C.
91			400	350		175				Mc.
92			300	425		300	.13 – .08	.10– .045		C. M. Mc.
93			260	180		200				Mc.
94			50	50		52				M. Mc.
95			1,230	2,970		2,800				M. Mc.
96			6,040	14,800		11,250				
97			65	45		25				M. Mc.
98			100	125		86				Mc.
99			150	160		180				M. Mc.
100			550	405		405				M. Mc.
101			1,100	3,270		2,550				M. Mc.
102			200	325		250				M. Mc.
103			900	600		360				M. Mc.
104			400	325		400				Mc.
105	Private	150	1,025	1,300		826	.12 – .04	.08– .03		C. Mc.
106	Do	130				60	.12 – .04	.08– .03		C.
107			200	210		225	.08 – .035	.08– .022		C. Mc.
108			65	85		50				Mc.
109	Private				35	25				C. Mc.
110	Do		60	50		35	.10			C. Mc.
111			160	120		100				Mc.
112			750	833		750				C. Mc.
113	Private		400	600		440	.15 – .125	.10– .07		Mc.
114			80	80		45				Mc.
115	Private		350	600		440	.15 – .07	.08– .04		C. Mc.
116	Do	50			45	75	.15 – .10	.07– .05		C. Mc.
117	Do	150				75	.15			C. Mc.
118		55	35	35		33				Mc.
119										M. Mc.
120	Private		100	100		75	.15	.08		C.
121	Do		160	85		35	.20 – .09	.20– .09		C. Mc.
122					110	62½				Mc.
123			300	300		300				Mc.
124									Iowa Railway & Light Co	Mc.
125	Private		300	257		210				C. Mc.
126	Do		300	225		125	.10	.10– .05		C. Mc.
127			225	120		135				Mc.
128			(400)	(660)		400				M. Mc.
129	Private		300	300		450	.10 – .06	.06– .03	Consolidated Indiana Coal Co	C. Mc.
130					90	47	.10			Mc.
131	Private		150	140		107½	.15	.10– .06		C. Mc.
132		400	400	400		430				Mc.
133		125	85	70		75	.15 – .09	.08– .045		C. Mc.
134									McGregor Electric Light & Power Co.	Mc.
135		200	200	200	150	125				Mc.
136			200	200		85				C. Mc.
137			225	285		175				Mc.
138	Private		250	260		140	.13 – .06			C. Mc.
139					(90)	80				Mc.
140		80	80	60		40				Mc.
141		800	700	500		1,025				Mc.
142			225	200		130				Mc.
143									Omaha Electric Light & Power Co.	C. M. Mc.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

IOWA—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
144	Osage Electric Light, Heat & Power Co	GD	Osage	Osage	Osage	
145	Osceola Light, Heat & Power Co	GD	Osceola and Murray	Osceola	Osceola	
146	Payne, R. R., Co	GD	Williams	Williams	Williams	
147	Peru Electric Light & Power Co	GD	East Peru	East Peru	East Peru	
148	Peterson Power & Milling Co	GD	Clay, O'Brien, Buena Vista Counties.	Peterson		Little Sioux River
149	Remsen Electric Light & Power Co	GD	Remsen	Remsen	Remsen	
150	Riceville Electric Light & Power Co	GD	Riceville	Riceville	Riceville	
151	Rockford Light & Power Co	GD	Rockford	Rockford		Shellock River
152	Rock Valley Electric Co	GD	Sioux and Lyon Counties	Rock Valley	Rock Valley	
153	Rolf Electric Light & Power Co	D	Rolf	Rolf	Rolf	
154	Sac City Electric Co	GD	Sac County	Sac City	Sac City	
155	Sanborn Electric Light Co	GD	Sanborn and Pringhar	Sanborn	Sanborn	
156	Schmidt Bros. Co. Electric Light Plant	GD	Elkader	Elkader		
157	Scranton-Glidden Electric Co	GD	Scranton and Ralston	Scranton	Scranton	
158	Sheffield Brick & Tile Co	GT	Sheffield & Rockwell	Sheffield	Sheffield	
159	Sheffield Electric Light & Power Co	GD	do	do	do	
160	Sheldon Light & Power Co	GD	Sheldon	Sheldon	Sheldon	
161	Sidney Light, Heat & Power Co	GD	Sidney	Sidney	Sidney	
162	Sigourney Electric Co	GD	Sigourney	Sigourney	Sigourney	
163	Sigourney Transfer Co	D	Keokuk and Mahaska Counties.	Sigourney		
164	Sioux City Service Co	GTD	Sioux City	Sioux City	Sioux City	
165	Sioux Rapids Heat & Electric Co	GD	Sioux Rapids	Sioux Rapids		
166	Southern Iowa Railway & Light Co	GTD	Albia	Albia	Albia	
167	Spirit Lake Electric Light Co	GD	Dickinson County	Spirit Lake	Spirit Lake	
168	Stanton Light & Power Co	D	Stanton	Stanton		
	Stone & Webster	M				
169	Fort Madison Electric Co	D	Fort Madison	Fort Madison	Fort Madison	
170	Keokuk Electric Co	DT	Keokuk and vicinity	Keokuk	Keokuk	
171	Mississippi River Power Co	GT	Illinois, Iowa and Missouri	Keokuk	Des Moines Rapids	Mississippi River
172	Storm Lake Electric Light & Power Co	GD	Storm Lake	Storm Lake	Storm Lake	
173	Sumner Light & Power Co	D	Sumner	Sumner	Sumner	
174	Thurman Electric Co	GD	Thurman	Thurman	Thurman	
175	Tipton Light & Heating Co	D	Tipton	Tipton	Tipton	
176	Traer Electric Co	GD	Traer	Traer	Traer	
177	Tripoli Canning Co. Light Plant	GD	Tripoli	Tripoli	Tripoli	
178	Turkey River Power Co	GD	West Union	West Union	West Union	
	Union Co. of Omaha	H				
179	Union Service Co	GD	Chariton and Russell	Chariton	Chariton	
180	Union Electric Co. of Dubuque	GTD	Dubuque and East Dubuque, Ill.	Dubuque	Dubuque	
181	Union Light & Power Co	GD	Correctionville	Correctionville	Correctionville	
	United Gas Improvement Co	H				
182	Sioux City Gas & Electric Co	GD	Sioux City and Leeds	Sioux City	Sioux City	
	United Light & Railways Co	H				
183	Fort Dodge Gas & Electric Co	H	Fort Dodge	Fort Dodge	Fort Dodge	
184	Iowa City Light & Power Co	GD	Iowa City and Coralville	Coralville	Coralville	Iowa River
185	Iowa & Illinois Ry. Co	D	Clinton	Clinton	Clinton	
186	Muscatine Lighting Co	GD	Muscatine, Cedar and Scott Counties.	Muscatine	Muscatine	
187	Peoples Gas & Electric Co	GD	Cerra Gordo, Worth and Floyd Counties.	Mason City	Mason City	
188	Peoples Light Co	D	Davenport			
189	Van Horn Electric Light & Power Co	GD	Van Horn	Van Horn	Van Horn	
190	Villisca Public Service Co	D	Villisca	Villisca	Villisca	
191	Wapello Electric Light & Power Co	GD	Wapello	Wapello	Wapello	
192	Warren, B. R., Electric Light Co			Dickens		
193	Waspie Power & Light Co	GTD	Linn and Cedar Counties	Mount Vernon	Mount Vernon	
194	Waterloo, Cedar Falls & Northern Ry. Co	GD	Waterloo and others	Waterloo	Waterloo	
195	West Branch Electric Light Co	GD	West Branch	West Branch	West Branch	

B.—MUNICIPAL PLANTS.

196		GD	Ackley	Ackley	Ackley	
197		GD	Adair and Anita	Adair	Adair	
198		D	Afton	Afton	Afton	
199		D	Akron	Akron	Akron	
200		GD	Algona	Algona	Algona	
201		GD	Allerton	Allerton	Allerton	
202		GD	Alta	Alta	Alta	
203		GD	Ames	Ames	Ames	
204		GD	Atlantic	Atlantic	Atlantic	
205		GD	Bagley	Bagley	Bagley	
206		GD	Bellevue	Bellevue	Bellevue	
207		GD	Bloomfield	Bloomfield	Bloomfield	
208		GD	Buffalo	Buffalo	Buffalo	
209		GD	Cedar Falls	Cedar Falls	Cedar Falls	
210		GD	Chariton	Chariton	Chariton	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

IOWA—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
144			250	240		150				Mc.
145	Private		220	225		125	$0.15 –$0.06	$0.12 –$0.04		C. M. Mc.
146			120	125		75	.20 – .135	.10		C. Mc.
147	Private				25	20½				C. Mc.
148	Do	300	150	150		375	.15 – .05	.07 – .03		C. Mc.
149					95	75				Mc.
150			150	75	50	35				Mc.
151	Private	170			140	137½	.15 – .10	.08		C. Mc.
152	Do		200	250		145	.15 – .10	.07 – .05		C. Mc.
153							.15 – .10	.07 – .04	Northern Iowa Power Co	C. Mc.
154	Private		400	600		400	.135– .072	.10 – .03		C. Mc.
155	Do		280	185		175	.15 – .12	.085 – .045		C. Mc.
156		196	100	125		50				Mc.
157									City of Glidden	Mc.
158	Private		450	850		312½	.02	.02		C. Mc.
159	Do		450	400		125	.15 – .07	.10 – .04	Sheffield Brick & Tile Co	C. Mc.
160			300	375		275	.14 – .06	.085 – .045		Mc.
161			60	80	12	60				Mc.
162			600	550		575				Mc.
163									Sigourney Electric Light Co	Mc.
164	Private		4,000	6,400		3,200	.12 – .03	.05 – .03		C. M. Mc.
165		100	100	60		(100)	.10			Mc.
166			400	650		600	.12			M. Mc.
167	Private		260	225		150				C. Mc.
168							.15	.10	Red Oak Electric Co	C.
169	Private						.10 – .02	.05 – .01	Mississippi River Power Co	C. M. Mc.
170									do	M. Mc.
171	Private	150,000				135,000		.0135– .0054		C.M.Mc.O.
172			200	300		200		.08		Mc.
173							.15 – .08	.10 – .05	Turkey River Power Co	C. Mc.
174	Private				30	20	.15			C. Mc.
175							.10	.10 – .04	Wapsie Power & Light Co	C. Mc.
176			500	200		150				Mc.
177			200			250	.20 – .05	.16 – .06		C.
178			225	200		162				Mc.
179	Private		450	400		300	.15 – .06	.12 – .04		C. Mc.
180	Do		2,400	9,500		11,150	.125– .1025	.10 – .02		C. M. Mc.
181			150	125		50				Mc.
182	Private		1,900	2,250		2,650	.09 – .03	.05 – .02		C. M. Mc.
183									Fort Dodge, Des Moines & Southern Ry.	M. Mc.
184	Private	500	850	1,250		950	.12 – .04	.07 – .02		C. M. Mc.
185									Tri-City Railway & Light Co	C. M. Mc.
186	Private		450	1,000		750	.135	.09 – .018	Moline-Rock Island Manufacturing Co.	C. Mc.
187			2,250	5,775		1,800	.12 – .04	.07 – .04		C. Mc.
188									Moline-Rock Island Manufacturing Co.	C. Mc.
189			100	60		45	.15			Mc.
190									Red Oak Electric Co	Mc.
191			140	215		180				Mc.
192										
193	Private		500	200		165	.125– .08	.065– .04	Iowa Railway & Light Co	C. Mc.
194	Do		3,000	7,000		7,000	.08 – .04			C. M. Mc.
195	Do		250	175		65	.15 – .08			C. Mc.
	Total, A	158,721	75,597	129,891	1,442	239,769				

B.—MUNICIPAL PLANTS.

196			265	175		125	$0.145–$0.125	$0.10 –$0.06		C. Mc.
197			140	230		150	.15 – .10			C. Mc.
198							.10 – .08		Creston Mutual Light, Heating & Power Co.	C. Mc.
199										O.
200					325	225				Mc.
201					85	60	.15 – .08			C.
202			690	170		85				Mc.
203	Private		550	1,100		780	.13 – .06	.085 – .04		C. Mc.
204	Do		500	700		490	.10 – .06	.07 – .02		C. Mc.
205	Do				35	22½	.15 – .08			C. Mc.
206	Do		100	85	200	210	.117	.04		C. Mc.
207			200	225		160				Mc.
208	Private				20	12½	.15	.15		C. Mc.
209	Do		575	750		500	.11 – .05	.085 – .025		C. Mc.
210			450	400		300				Mc.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

IOWA—Continued.

A.—MUNICIPAL PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
211		GD	Coggon	Coggon	Coggon	
212		GD	Corydon	Corydon	Corydon	
213		GD	Danbury	Danbury	Danbury	
214		GD	Denison	Denison	Denison	
215		GD	Dow City	Dow City	Dow City	
216		GD	Earlham	Earlham	Earlham	
217		GD	Eddyville	Eddyville	Eddyville	
218		GD	Eldon	Eldon	Eldon	
219		GD	Elma	Elma	Elma	
220		GD	Estherville	Esterville	Esterville	
221		GD	Fairfield	Fairfield	Fairfield	
222		GD	Farmington	Farmington	Farmington	
223		GD	Fayette	Fayette	Fayette	
224		D	Fontanelle	Fontanelle	Fontanelle	
225		GD	Glidden, Scranton, and Ralston.	Glidden	Glidden	
226		GD	Greenfield and Fontanelle	Greenfield	Greenfield	
227		GD	Grimes	Grimes	Grimes	
228		GD	Harlan	Harlan	Harlan	
229		GD	Hartley	Hartley	Hartley	
230		GD	Hawarden	Hawarden	Hawarden	
231		GD	Independence	Independence	Independence	
232		GD	Indianola	Indianola	Indianola	
233	University of Iowa	GD	University	Iowa City	Iowa City	Iowa River
234	Do	GD	do	do	do	
235		GD	Keosauqua	Keosauqua	Keosauqua	
236		GD	Lineville	Lineville	Lineville	
237		GD	Marshalltown	Marshalltown	Marshalltown	
238		GD	Mount Pleasant	Mount Pleasant	Mount Pleasant	
239		GD	Neola	Neola	Neola	
240		GD	New Hampton	New Hampton	New Hampton	
241		GD	New London	New London	New London	
242		GD	Newton	Newton	Newton	
243		D	Ogden	Ogden	Ogden	
244		GD	Onawa	Onawa	Onawa	
245		GD	Panora	Panora	Panora	
246		GD	Paulina	Paulina	Paulina	
247		GD	Pella	Pella	Pella	
248		GD	Pocahontas	Pocahontas	Pocahontas	
249		GD	Rock Rapids	Rock Rapids	Rock Rapids	
250		D	Roland	Roland	Roland	
251		GD	Seymour	Seymour	Seymour	
252		GD	Spencer	Spencer	Spencer	
253		GD	State Center	State Center	State Center	
254		GD	Story City and Roland	Story City	Story City	
255		GD	Strawberry Point	Strawberry Point	Strawberry Point	
256		GD	Stuart	Stuart	Stuart	
257		GD	Vinton	Vinton	Vinton	
258		GD	Walnut	Walnut	Walnut	
259		GD	Washington	Washington	Washington	
260		GD	Waverly	Waverly	Waverly	Red Cedar River
261		GD	Webster City, Duncombe, Woodstock.	Webster City	Webster City	
262		GD	West Liberty	West Liberty	West Liberty	
263		GD	West Point	West Point	West Point	
264		GD	Wilton Junction	Wilton Junction	Wilton Junction	
265		GD	Winterset	Winterset	Winterset	

C.—ALL OTHER PLANTS.

266	Des Moines City Ry. Co.	G	Electric railways	Des Moines	Des Moines	
	United Light & Railway Co.	H				
267	Cedar Rapids & Marion City Ry. Co.	G	Electric railway	Cedar Rapids	Cedar Rapids	
268	Mason City & Clear Lake Ry. Co.	G	do	Emery	Emery	

KANSAS.

A.—PUBLIC UTILITY PLANTS.

1	Abrahams, John	GTD	Downs and Glen Elder	Downs	Downs	
2	Alma Light & Ice Co.	GD	Alma	Alma	Alma	
	American Power & Light Co.	H				
3	Kansas Gas & Electric Co.	GTD	Halstead, Sedgewick, Cherryvale, Valley Center.	Cherryvale	Cherryvale	
4	Do	GTD	Independence	Independence	Independence	
5	Do	GD	Newton	Newton	Newton	
6	Do	GD	Wichita	Wichita	Wichita	
7	(Lessor, Home Light, Heat & Power Co.)	L	Pittsburg, Frontenac, Cherokee.	Pittsburg	Pittsburg	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

IOWA—Continued.

A.—MUNICIPAL PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
211					25	15	$0.15	$0.15		C.
212			180	245		75	$0.15 - .12	$0.09 - .06		C. Mc.
213	Private				55	35	.12			C. Mc.
214			350	225		200				Mc.
215	Private				25	32½	.15	.08		C. Mc.
216			220	200		110	.15 - .08	.08		C. Mc.
217			100	90		50				Mc.
218			220	230		100				Mc.
219	Private		260	230		175	.085- .07			C. Mc.
220	Do		300	200	225	375	.11	.07 - .03		C. Mc.
221			125	125		(70)			Fairfield Public Service Co.	Mc.
222			140	125		55				Mc.
223			200	150		60				Mc.
224									City of Greenfield	C. Mc.
225			160	300		175	.15 - .08	.09 - .05		C. Mc.
226	Private		230	285		175	.15 - .10	.11 - .06		C. Mc.
227					25	30				Mc.
228	Private		250	500		275	.15 - .05	.10 - .05		C. Mc.
229	Do				80	50	.15 - .08	.07		C. Mc.
230	Do		300	300		175	.15 - .10	.15 - .10		C. Mc.
231	Do		450	650		500	.11 - .09	.07 - .04		C. Mc.
232			450	510		450				Mc.
233		(330)				200				O.
234			(100)	150		50				O.
235			(80)	80		125				Mc.
236			140	70		50				Mc.
237			(90)	100		65				Mc.
238	Private		500	400		350	.10 - .06	.08 - .05		C. Mc.
239			105	90		50				Mc.
240	Private		300	250		150	.13 - .08	.08 - .04		C. Mc.
241	Do		250	250		150	.11	.04		C. Mc.
242			600	850		200	.08	.07 - .0187		Mc.
243									Central Iowa Light & Power Co.	Mc.
244	Private		300	325		150	.15 - .06	.08 - .06		C. Mc.
245		100			50	160			City of Story	Mc.
246	Private				150	92	.15 - .08			C. Mc.
247			450			340				Mc.
248					70	50				Mc.
249			300	185		130				Mc.
250										Mc.
251			200	320		300	.13 - .05	.13 - .035		C. Mc.
252			400	400		225				Mc.
253			200	150		100	.15 - .05	.15 - .05		C. Mc.
254			240	225	80	225				Mc.
255					145	95				Mc.
256	Private		200	175		135	.15 - .10	.08 - .06		C. Mc.
257	Do		300	250		175	.12 - .06	.07 - .04		C. Mc.
258	Do		215	85		125	.13 - .10			C. Mc.
259			200	125		75				Mc.
260	Private	280	330	337		500	.12 - .05	.06		C. Mc.
261	Do		450	750		500	.10 - .05	.08 - .03		C. Mc.
262			300	250		150				Mc.
263			100	100		75				Mc.
264			150	100		60	.125			Mc.
265			300	300		310	.10	.08 - .06		C. Mc.
	Total, B	710	14,205	14,517	1,595	11,724				

C.—ALL OTHER PLANTS.

266			3,920	6,750		4,500				M. Mc.
267	Private		(1,600)	2,000		1,550			People's Gas & Electric Co.	C.
268	Do		500	600		400				C.
	Total, C		6,020	9,350		6,450				
	Grand total	159,431	95,822	153,758	3,037	257,943				

KANSAS.

A.—PUBLIC UTILITY PLANTS.

1			(300)	300		150				Mc.
2	Private		200	125	50	110	$0.15 -$0.10	$0.06		Mc.
3			375	450	100	300				Mc. M.
4					1,390	755				Mc. M.
5			875	920		650				Mc. M. C.
6			2,312	10,950		8,750				Mc. O. C.
7	Private		1,650	1,500		1,050				C. Mc. M.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY, KANSAS—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
8	Barber-Angell Electric Light Co	GD	Tonganoxie	Tonganoxie	Tonganoxie	
9	Baxter Springs Electric Light & Water Co	GD	Baxter Springs	Baxter Springs	Baxter Springs	
10	Beattie Electric Light Plant	GD		Beattie	Beattie	
11	Bern Electric Light Plant	GD	Bern	Bern	Bern	
12	Blue Mound Electric Light Co	GD		Blue Mound		
13	Bonner Springs Electric Light Co	GD	Bonner Springs	Bonner Springs		
14	Bowersack Mill & Power Co	GT	Lawrence	Lawrence	Lawrence	
15	Buffalo Electric Light & Power Co	D	Buffalo	Buffalo	Buffalo	
16	Burlington Light, Power & Manufacturing Co	GD	Burlington	Burlington	Burlington	
17	Caldwell Light & Power Co	GD		Caldwell		
18	Caney Electric Light & Railway Co	GD	Caney	Caney	Caney	
19	Cawker City Electric Light & Power Co	GD	Cawker City	Cawker City	Cawker City	
20	Claflin Telephone, Light & Garage Co	GD	Claflin	Claflin	Claflin	
21	Concordia Electric Light Co	GD	Claud, Jewel, Mitchell	Concordia	Concordia	
22	Do		Republic and Washington Counties.	Washington	Washington	
23	Conway Springs Electric Light & Ice Co	GD		Conway Springs		
24	Council Grove Ice, Light & Power Co	GD	Council Grove	Council Grove	Council Grove	
25	Diamond Electric Light & Power Co	GD	Spearville	Spearville	Spearville	
26	Dickinson County Light & Power Co	GD	Chapman	Chapman	S. 29, T. 12 S., R. 4 E.	
	Doherty Operating Co	M				
27	Salina Light, Power & Gas Co	GD	Salina	Salina	Salina	
28	Spring River Power Co	GTD		Lowell		
29	Do			Spring River	Lowell	Spring River.
30	United Water, Gas & Electric Co	GD	Hutchinson, Nickerson, and South Hutchinson.	Hutchinson	Hutchinson	
31	Downs Electric Light & Power Co	GD	Downs	Downs	Downs	
32	El Dorado Electric & Refrigerating Co	GD	El Dorado	El Dorado	El Dorado	
	Emanuel, Albert, Co	M				
	Emporia Railway & Light Co	GD				
33	(Lessor, city of Emporia)	L	Emporia	Emporia	Emporia	
34	Lawrence Railway & Light Co	T	Lawrence	Lawrence	Lawrence	
35	Eureka Light & Power Co	GD	Eureka	Eureka	Eureka	
36	Frankfort Light & Power Co	GD	Frankfort	Frankfort	Frankfort	
37	Fredonia Ice & Light Co	GD	Fredonia	Fredonia	Fredonia	
38	Garden City Light, Power & Water System	GD	Garden City	Garden City	Garden City	
39	Garden City Telephone, Light & Manufacturing Co	GD	do	do	do	
40	Garnett Electric Light Co	GD	Garnett	Garnett	Garnett	
41	Goodland Light & Power Co	GD	Goodland	Goodland	Goodland	
42	Gypsum Light & Power Co	GD	Gypsum	Gypsum	Gypsum	
43	Haven Electric Light & Ice Co	GD	Haven	Haven	Haven	
44	Hays Electric Light Co	GD	Hays	Hays	Hays	
45	Hiawatha Light, Power & Ice Co	GD	Hiawatha	Hiawatha	Hiawatha	
46	Home Light & Power Co	GD	Cottonwood Falls and Strong	Cottonwood Falls		
47	Home Telephone & Electric Co	GD	Highland	Highland	Highland	
48	Humboldt Mill & Power Co	GD	Humboldt	Humboldt	Humboldt	
49	Hutchinson Interurban Ry. Co	D		Hutchinson		
	Illinois Traction Co	H				
50	Atchison Railway Light & Power Co	GTD	Atchison and Troy	Atchison	Atchison	
51	Topeka Edison Co	GD	Topeka	Topeka	Topeka	
	Interstate Electric Corporation	H				
52	Great Bend Water & Electric Co	GTD	Great Bend	Great Bend	Great Bend	
53	Hoisington Electric & Ice Co	D	Hoisington	Hoisington	Hoisington	
54	Jackson Roller Mills	GD	Minneapolis	Minneapolis	Minneapolis	
55	Jewell Milling Co	GD	Jewell City	Jewell City	Jewell City	
56	Joplin & Pittsburg Ry. Co	GD		Franklin	Franklin	
57	Do	GD		Pittsburg	Pittsburg	
	Kansas City Railway & Light Co	H				
58	Standard Electric Light Co	D	Kansas City	Kansas City		
59	Kansas City, Lawrence & Topeka R. R. Co	GD		Merriam	Merriam	
	Kansas Southern Electric R. R. Co	H				
60	Iola Electric R. R. Co	GTD	Iola, Gas & La Harpe	Iola	Iola	
61	Kensington Light & Water Co	GD		Kensington		
62	Kingman Light & Power Co	GD		Kingman		
63	Kinsley Electric Light & Power Co	GD	Kinsley	Kinsley	Kinsley	
64	La Crosse Ice & Light Co	GD	La Crosse	La Crosse	La Crosse	
	Land & Power Co	GD				
65	Arkansas City Gas & Electric Light Co		Arkansas City	Arkansas City	Arkansas City	
66	Liberal Light, Ice & Power Co	GD	Liberal	Liberal	Liberal	
	Light & Development Co. of St. Louis	H				
67	Fort Scott Gas & Electric Co	GD	Fort Scott	Fort Scott	Fort Scott	
68	Lyons Electric & Manufacturing Co	GD	Lyons	Lyons	Lyons	
69	Manhattan Ice, Light & Power Co	GD	Manhattan	Manhattan	Manhattan	
70	Marshall County Power & Light Co	GD	Blue Rapids	Blue Rapids	Blue Rapids	
71	Marysville Light, Power & Water Co	GD	Marysville	Marysville	Marysville	
72	Meade Light & Power Co	GD	Meade	Meade	Meade	
73	Medicine Lodge Electric Light Co	GD		Medicine Lodge	S. 12, T. 32 S., R. 12. W.	
74	Midland Water, Light & Gas Co	GD	Dodge City	Dodge City	Dodge City	
75	Moline Electric Co	GD	Moline	Moline	Moline	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

KANSAS—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
8					90	50				Mc.
9	Private		100	130		95				Mc. C.
10					30	50				C.
11	Private		80	115		50	$0.15	$0.10		Mc. C.
12					(60)	37½				C.
13					112	80	.10	.10		S.
14	Private	1,500	1,125	1,000		1,590	.0125			Mc. C.
15										
16			200	300		160				M.
17	City		350	250		(150)				Mc.
18	Private		200	270	100	200	$0.125 - .07	$0.07 - .05		C.
19	City		500	300		(200)	.18	.10	John Abrahams	Mc. C.
20					106	100				Mc. C.
21	Private		1,350	2,400		1,470	.13 - .06	.10 - .05		Mc.
22	Do		240	125		75	.15	.10		Mc. C.
23			(200)	(250)		150				C.
24	Private		325	300		150	.12 - .06	.05		Mc. C.
25	Do				50	30	.15	.08		Mc. C.
26		212			100	200	.04			Mc. C.
27			1,400	1,870		1,150				Mc. M. C.
28			(3,000)	(3,700)		2,250				M.
29	Private	7,000				4,000				M. Mc.
30			2,120	8,000		3,250	.05	.05 - .01		Mc. M. C.
31	Private		400	250		200	.15 - .10	.10 - .025	Public Light & Power Co	Mc. C.
32	Do		300	175	100	175	.12 - .07	.10 - .03		Mc. C.
33			1,000	1,100		1,010				Mc. M.
34							.10 - .05		Bowersock Mills & Power Co	Mc. C.
35			300	210		224				Mc. C.
36			200	160		100				Mc.
37	Private		375	250		187	.10 - .06	.06 - .04		Mc. C.
38			450	300		200				C. Mc.
39			170	100	125	150				Mc.
40			130	275		175				C.
41			250	165		200				Mc. O.
42					50	35				Mc. C.
43			130	100		50				Mc.
44			200	75		90				Mc.
45	Private		300	175		150	- .125	.09 - .05		Mc. C.
46	Do	290	100	210		175	.125 - .04	.10 - .03		Mc. C.
47					65	40				Mc.
48		150	160	120		160				Mc. O.
49									United Water, Gas & Electric Co.	M. C.
50	Private		1,000	1,600		1,200				Mc. O.
51			3,356	5,891		4,420	.09			Mc. M.
52	Private		725	800		500	.10 - .04	.05 - .025		Mc. O.
53									Great Bend Water & Electric Co.	Mc.
54		150	300	300		75	.07	.02		Mc. C.
55			100	105		37½				Mc.
56	Private		450	500		300	.05		Empire District Electric Co	C. Mc.
57	Do		1,125	1,400		800				C. Mc.
58									Kansas City Electric Light Co. of Missouri.	Mc.
59	Private				400	255	.10		Metropolitan Street Ry. of Kansas City.	Mc.
60			500	600		400				Mc. M.
61					50	37½				C.
62					300	250				C.
63					280	160				Mc.
64			180	160		90				Mc.
65		1,015	800	840		1,050				Mc. C.
66	Private		300	300		175	.15 - .08	.10 - .06		Mc. C.
67			900	2,030		1,500				Mc. M. C.
68			250	150		105				Mc.
69			650	1,000		700	.10 - .06	.055- .02	Rocky Ford Milling & Power Co.	Mc. C.
70		250				450				Mc.
71			160	235		235				Mc.
72					50	37½				Mc.
73	Private		160	270		175	.15 - .08			C.
74			425	500		325				Mc. C.
75					92	60				Mc.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY, **KANSAS**—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
76	Morrill Electric Light Co	D		Morrill		
77	Morris Electric Power Co	GD	Stirling	Stirling	Stirling	
78	Moxley & Co	GTD	Oskaloosa and McSouth	Oskaloosa	Oskaloosa	
79	Mulvane Ice & Cold Storage Co	GD	Mulvane	Mulvane	Mulvane	
80	Nortonville Electric Light, Power & Heat Co	GD	Nortonville	Nortonville	Nortonville	
81	Olathe Electric Light & Power Co	GD	Olathe	Olathe	Olathe	
82	Onaga Light, Heat & Power Co	GD	Onaga	Onaga	Onaga	
83	Osage County Light & Power Co	D	Melvern and Quenemo	Lyndon		
84	Oswego Light, Power & Supply Co	GD	Oswego	Oswego	Oswego	
85	Parsons Railway & Light Co	GD	Parsons	Parsons	Parsons	
86	Peabody Light, Power & Ice Co	GD	Peabody	Peabody	Peabody	
87	Peoples Electric Light & Power Plant	GD	Ellsworth	Ellsworth	Ellsworth	
88	Peoples Electric Light Co	GD	Paola	Paola	Paola	
89	Phillipsburg Mill & Elevator Co	GD	Phillipsburg	Phillipsburg	Phillipsburg	
90	Plainville Mill & Elevator Co	GD	Plainville	Plainville	Plainville	
91	Pratt Light & Ice Co	GD	Pratt	Pratt	Pratt	
92	Pretty Prairie Electric Light & Power Co	GD	Pretty Prairie	Pretty Prairie	Pretty Prairie	
93	Protection Electric Light Co	GD		Protection		
94	Riverside Light & Power Co	G	Abilene and Enterprise	Abilene		
95	Sedan Electric Light & Power Co	GD	Sedan	Sedan	Sedan	
96	Shady Bend Milling & Power Co	GD	Shady Bend	Shady Bend	Shady Bend	
97	Smith Center Milling, Elevator & Light Co	GD	Smith Center	Smith Center	Smith Center	
98	Smith, C. W., Electric & Ice Co	GD	Larned	Larned	Larned	
99	Swartz, Henry, Electric Co	GD		Valley Falls		
100	Sylvia Electric Light Co	GD		Sylvia		
101	Syracuse Electric Light Co	GD		Syracuse	S. 7, T. 24 S., R. 40 W	
102	Troth Electric Co	GD	Valley Falls	Valley Falls	Valley Falls	
	United Gas & Electric Corporation of Connecticut:	H				
103	Leavenworth Light, Heat & Power Co	GD	Leavenworth	Leavenworth	Leavenworth	
104	United States Reclamation Service	GD		Deerfield	Garden City	
105	Union Light & Power Co	GTD	Junction City and Fort Riley	Junction City	Junction City	
106	Wellsville Electric Light & Power Co	GD	Wellsville	Wellsville	Wellsville	
107	Wilson Electric Light Co	GD	Wilson	Wilson	Wilson	
108	Yates Center Electric Light & Power Co	GD	Yates Center	Yates Center	Yates Center	

B.—MUNICIPAL PLANTS.

109	GD	Almena	Almena	Almena	
110	GD	Anthony	Anthony	Anthony	
111	GD	Ashland	Ashland	Ashland	
112	GD	Augusta	Augusta	Augusta	
113	GD	Baldwin	Baldwin	Baldwin	
114	GD	Belle Plaine	Belle Plaine	Belle Plaine	
115	GD	Belleville	Belleville	Belleville	
116	GD	Beloit	Beloit	Beloit	
117	GD	Bucklin	Bucklin	Bucklin	
118	GD	Burlingame	Burlingame	Burlingame	
119	GD	Caldwell	Caldwell	Calwell	
120	GD	Centralia	Centralia	Centralia	
121	GD	Chanute	Chanute	South Santa Fe	
122	GD	Chetopa	Chetopa	Chetopa	
123	GD		Cimarron	Cimarron	
124	GD	Clay Center	Clay Center	Clay Center	
125	GD	Clearwater	Clearwater	Clearwater	
126	GTD	Coffeyville and South Coffeyville.	Coffeyville	Coffeyville	
127	GD	Colby	Colby	Colby	
128	GD	Coldwater	Coldwater	Coldwater	
129	GD	Delphos	Delphos	Delphos	
130			De Soto	De Soto	
131	GD	Ellinwood	Ellinwood	Ellinwood	
132	GD	Ellis	Ellis	Ellis	
133	GD	Erie	Erie	Erie	
134	GD	Garnett	Garnett	Garnett	
135	GD	Geneseo	Geneseo	Geneseo	
136	D	Glasco	Glasco		
137	GD	Girard	Girard	Girard	
138	GD	Greensburg	Greensburg	Greensburg	
139	GD	Harper	Harper	Harper	
140	GTD	Herington and Hope	Herington	Herington	
141	GD	Hiawatha	Hiawatha	Hiawatha	
142	GD	Holton	Holton	Holton	
143	D	Hope	Hope		
144	GTD	Horton and Whiting	Horton	Horton	
145	D	Iola	Iola	Iola	
146	D	Jamestown	Jamestown		
147	GD	Jetmore	Jetmore		
148	GD	Kansas City	Kansas City	Kansas City	
149	GD	Kingman	Kingman		
150	GD	Kiowa	Kiowa	Kiowa	
151	GD	La Crosse	La Crosse	La Crosse	
152	GD	La Cygne	La Cygne		
153	GD	Lebanon	Lebanon	Lebanon	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

KANSAS—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
76	City						$0.12		City of Sabetha	O.
77			150	128		207½				Mc. C.
78			180	205		305				Mc. C.
79			240	125		82½	$0.15 - .10	$0.08		Mc. O.
80	Private		100	90		30	.15 - .10	$0.10 - .04		Mc. O.
81			350	300		225				Mc. C.
82					75	48	.12 - .06	.10 - .06		Mc. C.
83										Mc.
84					150	125				Mc.
85	Private		500	1,400		1,300	.10 - .04			Mc. O.
86	do		300	175		100	.12 - .08	.06 - .03		Mc. C.
87			250	85	50	185				Mc. C.
88			125	125		75				Mc.
89	Private		380	350		140	.15	.05		Mc. C.
90	do		300	200		100	.10			Mc. C.
91			300	300		150				Mc.
92					60	30				Mc. C.
93	City				75	50				O.
94		800	850	1,350		1,400	.10	.05 - .0125		Mc. C.
95	Private				102	50	.10	.05		Mc. O.
96		76	100	86		50				Mc.
97			250	225		150				Mc.
98			450	325		225	.125	.05		Mc. C.
99	Private				72		.15 - .10			O.
100	do				60	37½	.15 - .10			C.
101					80	50	.125			C.
102		120	100	50		100				
103	Private		1,900	1,925		1,300	.11 - .06	.0275		Mc. M. C.
104				700		450				O.
105			1,100	1,000		800				Mc.
106					120	80	.10			Mc. C.
107			200	200		150				Mc.
108	Private		150	135		125	.125- .08			Mc. C.
	Total, A	11,563	41,023	63,080	4,544	52,041				

B.—MUNICIPAL PLANTS.

109					60	50				Mc.
110	Private		250	250		175	$0.10 -$0.06	$0.06		Mc. C.
111	City				150	105	.15 - .10			Mc. O.
112					100	62½				Mc.
113					235	135				Mc.
114	City				100	75	.10 - .06	$0.10 - .04		Mc. O.
115			160	125	170	225				Mc. C.
116			300	350		350				Mc.
117					140	100				Mc.
118			200	100		90				Mc.
119	Private		185	200		225				Mc. C.
120			80	100		125				Mc. C.
121	City		150	650		615	.08	.04 - .02		Mc. O.
122			250	150		95				Mc.
123	City				60	(40)	.125			O.
124			350	300		218				Mc.
125					80	50				Mc.
126			750	1,275		900				Mc.
127			200	175		125				Mc.
128	City				180	130	.15 - .10	.08 - .06		Mc. C.
129		125	125			50				C.
130						9½				C.
131	City		200	200		125	.15 - .10	.06		Mc. C.
132			300	150		75	.15 - .10			Mc. C.
133	City		300	185		75	.08	.05 - .03		Mc.
134			130	275		175				Mc. C.
135	Private				25	25	.15			C.
136							.125		Concordia Electric Light Co	Mc.
137			300	600		350				Mc.
138					110	60				Mc.
139			300	300		170				Mc. C.
140			300	575		375				Mc.
141			200	100		75				Mc.
142			35	700		470				Mc.
143							.125		City of Herington	Mc.
144	City		300	700		190	.12 - .073			Mc. O.
145										Mc. C.
146							.15 - .10	.075	Concordia Electric Light Co	Mc. O.
147						30				O.
148			2,950	8,320		4,500				Mc. C.
149			300	300	100	255				Mc.
150			150	250		175				Mc.
151	Private		180	150		90	.12			Mc. C.
152	City		220	70		50	.125- .10			C.
153					100	75				Mc.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

KANSAS—Continued.

B.—MUNICIPAL PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
154		GD	Lincoln	Lincoln	Lincoln	
155		GD	Lindsborg	Lindsborg	Lindsborg	
156		GD	Lucas	Lucas	Lucas	
157		GD	Lyndon	Lyndon	Lyndon	
158		GD	McCune	McCune	McCune	
159		GD	McPherson	McPherson	McPherson	
160		GD	Madison	Madison	Madison	
161		GD	Marion	Marion	Marion	
162		GD	Marquette	Marquette	Marquette	
163		GD	Moundridge	Moundridge	Moundridge	
164		GTD	Mulberry and Burgess, Mo.	Mulberry	Mulberry	
165		GD	Neodesha	Neodesha	Neodesha	
166		GD	Ness City	Ness City	Ness City	
167		D	Nickerson	Nickerson		
168		GD	Norton	Norton	Norton	
169		GD	Oakley	Oakley	Oakley	
170		GD	Oberlin	Oberlin	Oberlin	
171		GD	Oketo	Oketo	Oketo	
172		GD	Osage City	Osage City	Osage City	
173		GD	Osawatomie	Osawatomie	Osawatomie	
174		GD	Osborne	Osborne	Osborne	
175		GD	Ottawa	Ottawa	Ottawa	
176		GD	Perry	Perry	Perry	
177		GD	Russell	Russell	Russell	
178		GD	St. John	St. John		
179		GD	St. Marys	St. Marys	St. Marys	
180		GTD	Sabetha and vicinity	Sabetha	Sabetha	
181		GD	Scott City	Scott City	Scott City	
182		GD	Seneca	Seneca	Seneca	
183		GD		Soldier	Soldier	
184		GD	South Haven	South Haven	South Haven	
185		GD	Stockton	Stockton	Stockton	
186		GD		Sylvan Grove	Sylvan Grove	
187		GD	Syracuse	Syracuse	Syracuse	
188		GD	Topeka	Topeka	Topeka	
189		GD	Towanda	Towanda	Towanda	
190		GD	Wakeeney	Wakeeney	Wakeeney	
191		D	Walthena	Walthena		
192		GD	Wamego	Wamego	Wamego	
193		GD		Waterville	Waterville	
194		GD	Waverly	Waverly	Waverly	
195		GD	Wellington	Wellington	Wellington	
196		GD	Wetmore	Wetmore	Wetmore	
197		GD	Wilson	Wilson	Wilson	
198		GD	Winfield	Winfield	Winfield	

C.—ALL OTHER PLANTS.

199	Garden City Sugar & Land Co		Irrigation			
200	Helmers Manufacturing Co		Manufacturing			
201	Hogan Milling Co., The					Smoky Hill
202	Manhattan City & Interurban Ry. Co		Electric railway	Manhattan	Manhattan	
203	Missouri & Kansas Interurban Ry. Co		do	Overland Park	Overland Park	
204	Morris Co					
205	Shaw Manufacturing Co					
206	Smith Ice Co			Pleasanton	Pleasanton	
207	Union Traction Co., The		Electric railway	Independence	Independence	

KENTUCKY.

A.—PUBLIC UTILITY PLANTS.

	American Railways Co	H				
1	Boyd County Electric Co	D	Ashland and Catlettsburg	Ashland		
2	Arnold, W. E., Flour Mill	GD	Owenton	Owenton	Owenton	
3	Bagby, J. A., Electric Light Plant	GD	Grayson	Grayson	Grayson	
4	Barbourville Electric Light, Heat & Power Co	GD	Barbourville	Barbourville	Barbourville	
5	Beaver Dam Milling Co	GD	Beaver Dam	Beaver Dam	Beaver Dam	
	Byllesby, H. M., & Co	M				
6	Louisville Gas & Electric Co	GD	Louisville and vicinity	Louisville	Louisville	
7	Campbellsville Public Utilities Co	GD	Campbellsville	Campbellsville	Campbellsville	
8	Carlisle Electric Light & Power Co	GD	Carlisle	Carlisle	Carlisle	
9	Central City Light & Power Co	GD	Central City	Central City	Central City	
10	Citizens Lighting Co	GD	Vine Grove	Vine Grove	Vine Grove	
11	Clay Light & Ice Co	GD	Clay	Clay	Clay	
12	Clinton Water & Light Co	GD	Clinton	Clinton	Clinton	
	Columbia Gas & Electric Co. of West Virginia	H				
13	South Covington & Cincinnati Street Railway Co.	GD	Covington, Newport	Newport	Newport	
14	Union Light, Heat & Power Co	D	Belleville, Dayton, St. Thomas and vicinity.			

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

KANSAS—Continued.

B.—MUNICIPAL PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
154	City		250	200		125	$0.125	$0.10		Mc. C.
155			180	300		250				Mc.
156					50	50				Mc.
157					120	75				Mc.
158					90	87½				Mc. C.
159	Private		300	400		250	$0.125– .05	.01		Mc. C.
160					65	50				Mc.
161					210	125				Mc.
162			120	120		40				Mc.
163					100	60				Mc.
164			200	160		100				Mc.
165			300	550		375				Mc. C.
166					80	50				Mc.
167									United Water, Gas & Electric Co.	Mc. O.
168					150	100				Mc.
169					80	50				Mc.
170			110	100		75				Mc.
171	Private				25	18	.15			Mc. C.
172			400	150	225	275				Mc. C.
173					160	120				Mc.
174			100	85		75				Mc.
175	City		440	430		430	.10 – .04	.07 – .025		Mc. O.
176					30	17				Mc.
177	Private				275	150	.12– .08	.05		Mc. C.
178						175				C.
179			250	200		125				Mc.
180			400	100		314				Mc. C.
181					95	53	.125– .10			Mc. C.
182			320	250		200				Mc.
183	City									C.
184	Private				25	30	.14 – .09			Mc. C.
185					160	112½	.10 – .07	.06		Mc. C.
186	City				82	75	.15			C.
187	Private				80	50	.125			Mc. O.
188	City		450	550		500				Mc. C.
189					50	136				Mc.
190					80	50				Mc.
191									St. Joseph Street Ry. Co.	Mc.
192	Private		300	240		240	.10	.06 – .03		Mc. C.
193					(80)	50				C.
194	City		180	125		72½	.15 .13			Mc. C.
195			450	500		400				Mc.
196					50	35				Mc.
197					200	125				Mc.
198	City		600	1,150		400				Mc.
	Total, B	125	14,830	22,160	4,172	17,381				Mc. O.

C.—ALL OTHER PLANTS.

199						3,375				C.
200						150				C.
201						300				C.
202			250	250		200				Mc.
203					700	500				Mc. M.
204				1,000		650				C.
205						5				C.
206						75				O.
207					2,200	1,500				Mc.
	Total, C		250	1,250	2,900	6,755				
	Grand total	11,688	56,103	86,490	11,616	76,177				

KENTUCKY.

A.—PUBLIC UTILITY PLANTS.

1									Consolidated Light, Heat & Power Co.	Mc. M.
2					85	30				Mc. C.
3			150	140		80	$0.10			Mc. C
4	Private		100	225		120	.10	$0.10 –$0.03		Mc. C.
5	Do		100	90		20	.10			Mc. C.
6			12,450	33,330		25,000	.08	.04		Mc. M.
7			100	150		100				Mc.
8			300	125		125	.10	.045		Mc. C.
9			300	250		190				Mc.
10	Private				25	20				Mc. C.
11	Do		200	100		75				Mc. C.
12			60	90		60	.10			Mc.
13			5,000	9,100		6,750	.10	.10 – .0125	Union Gas & Electric Co. of Cincinnati.	Mc. M. C.
14										Mc M. C.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

KENTUCKY—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
15	Columbia Lighting Co	GD	Columbia	Columbia	Columbia	
16	Consolidated Coal Co	GD	Paintsville and Prestonsburg.	Van Lear	Van Lear	
	McCaskey, W. T., & Co.[a]	H				
17	Leitchfield Electric Light & Power Co	GD	Leitchfield	Leitchfield	Leitchfield	
18	Cynthiana Electric Light Co	GD	Cynthiana	Cynthiana	Cynthiana	
19	Dawson Light & Power Co	GD	Dawson Springs	Dawson Springs	Dawson Springs	
20	Day Electric & Coal Co	GD	Jackson	Jackson	Jackson	
21	De Baun, W. J	GD	Perryville	Perryville	Perryville	
22	Electric Light Co., The	GD	Owingsville	Owingsville	Owingsville	
23	Emmick, Jesse C., Electric Light Plant	GD	Lewisport	Lewisport	Lewisport	
24	Flemingsburg Light & Ice Co	GD	Flemingsburg	Flemingsburg	Flemingsburg	
25	Franklin Electric & Ice Co. (Inc.)	GD	Franklin	Franklin	Franklin	
26	Georgetown Water, Gas, & Electric Power Co	D	Georgetown	Georgetown	Georgetown	
27	Glasgow Electric Light & Ice Co	GD	Glasgow	Glasgow	Glasgow	
28	Green River Light & Water Co	GD	Calhoun	Calhoun	Calhoun	
29	Greenup Light Co	D	Greenup	Greenup		
30	Greenville Light & Water Co	GD	Greenville	Greenville	Greenville	
31	Guthrie Milling Co	GD	Guthrie and Allensville	Guthrie	Guthrie	
32	Hackett, A. M., & Trunnell, W. S	GD	Livermore	Livermore	Livermore	
33	Hawesville Electric Light, Heat & Power Co	GD	Hawesville	Hawesville	Hawesville	
34	Hodgenville Light Co	GD	Hodgenville	Hodgenville	Hodgenville	
35	Home Electric Light Co., The	GD	Corbin	Corbin	Corbin	
36	Home Lighting Co	GD	Uniontown	Uniontown	Uniontown	
	Hood, J. W	GD				
37	(Lessor, city of Scottsville)	L	Scottsville	Scottsville	Scottsville	
38	Kentucky Light & Power Co	GD	Hartford	Hartford	Hartford	
	White, J. G., & Co. (Inc.)[b]	M				
39	Kentucky Public Service Co	GD	Bowling Green	Bowling Green	Bowling Green	
40	Do	GD	Frankfort	Frankfort	Frankfort	
41	Do	GTD	Hopkinsville	Hopkinsville	Hopkinsville	
	Kentucky Securities Corporation	H				
42	Lexington Utilities Co	GTD	Lexington, Frankfort, and vicinity.	Lexington	Lexington	
43	Lafayette Ice & Electric Co	GD	Lafayette	Lafayette	Lafayette	
44	La Grange Light & Power Co	GD	La Grange	La Grange	La Grange	
45	Lebanon Light, Ice & Power Co	GD	Lebanon	Lebanon	Lebanon	
46	Liberty Roller Mills Co	GD	Liberty	Liberty	Liberty	
47	Light & Development Co. of St. Louis	H				
	Danville Light, Power & Traction Co	GD	Danville	Danville	Danville	
48	Paris Gas & Electric Co	GD	Paris	Paris	Paris	
49	Logan, H. M	GD	Bloomfield	Bloomfield	Bloomfield	
50	London Electric Light & Power Co	GD	London	London	London	
51	Marion Electric Light & Ice Co	GD	Marion	Marion	Marion	
52	Mayfield Water and Light Co	GD	Mayfield	Mayfield	Mayfield	
53	Maysville Public Service Co	GD	Maysville	Maysville	Maysville	
	Middle West Utilities Co	H				
54	Kentucky Utilities Co	GD	Elizabethtown	Elizabethtown	Elizabethtown	
55	Do	GD	Middlesboro	Middlesboro	Middlesboro	
56	Do	GD	Pineville and Midway	Pineville	Pineville	
57	Do	GD	Richmond, Newcastle, Pleasantville.	Richmond	Richmond	
58	Do	GD	Shelbyville and Eminence	Shelbyville	Shelbyville	
59	Do	GD	Burnside and Somerset	Somerset	Somerset	
60	Do	GD	Winchester and Mount Sterling.	Winchester	Winchester	
61	Monticello Electric Light & Power Co	GD	Monticello	Monticello	Monticello	
62	Morganfield Light & Power Co. (Inc.)	GD	Morganfield	Morganfield	Morganfield	
63	Mutual Realty & Leasing Co	GD	Olympia	Olympia	Olympia	
	National Light & Power Co	H				
64	Public Service Co. of Western Kentucky	GD	Fulton, Riceville, and South Fulton, Tenn.	Fulton	Fulton	
65	Do	GD	Hickman	Hickman	Hickman	
66	Paintsville Water & Light Co	D	Paintsville and The Alka	Paintsville	Paintsville	
67	Payne, C. R	GD	Burkesville	Burkesville	Burkesville	
68	Princeton Light & Power Co	GD	Princeton	Princeton	Princeton	
	Providence Mining Co	H				
69	Providence Electric Light Co	GD	Providence	Providence	Providence	
70	Richmond Electric & Power Co	D	Richmond	Richmond	Richmond	
71	Rose, C. C., Electric Light Plant	GD	Lancaster	Lancaster	Lancaster	
72	St. Bernard Mining Co	GD	Earlington	Earlington	Earlington	
73	Sandy Valley Light & Power Co	GD	Pikeville	Pikeville	Pikeville	
74	Shepherdsville Electric Light, Ice & Water Co	GD	Shepherdsville	Shepherdsville	Shepherdsville	
75	South Kentucky Power Co	D	Pembroke and Trenton	Pembroke		
76	Springfield Water & Electric Light Co	GD	Springfield	Springfield	Springfield	
77	Stanford Water, Light & Ice Co	GD	Stanford	Stanford	Stanford	
	Stone & Webster Management Association	M				
78	Paducah Light & Power Co	GD	Paducah and vicinity	Paducah	Paducah	
79	Sturgis Electric Light Co	GD	Sturgis	Sturgis	Sturgis	
80	Vanceburg Light Co	GD	Vanceburg	Vanceburg	Vanceburg	
81	Walton Electric Light Co	GD	Walton	Walton	Walton	
82	Warren Light & Power Co	GD	Warren	Sebree	Warren	
83	Williamsburg Electric Light Co	GD	Williamsburg	Williamsburg	Williamsburg	
84	Williamstown Mill & Light Co	GD	Williamstown	Williamstown	Williamstown	

[a] W. T. McCaskey & Co. is not placed in alphabetical order.

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

KENTUCKY—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
15			80	80		35				Mc. C.
16	Private		1,000	1,500		1,000	$0.03 –$0.015			C.
17	Do		160	67		50	.17 – .10	$0.10 –$0.04		Mc. M. C.
18	Do		300	475		475	.10	.08		Mc. C.
19			180	90		50				Mc.
20										Mc.
21			75	65		(35)				Mc.
22	Private		50		50	25				C
23			50	50		26				Mc.
24			125	75		60				Mc.
25	Private		300	450		270	.12 – .04	.06 – .02		Mc. M. C.
26							.12		Lexington Utilities Co	Mc M C.
27	Private		200	400		287½	.15	.125		Mc. C.
28	Do		130	75		75	.12			Mc. C.
29										Mc.
30			300	197		105				Mc. C.
31			100	100		75				M.
32			275	138		75	.125			Mc.
33			75	100		(60)				Mc.
34			125	100		70				Mc. C.
35			125	200		160				Mc.
36			200	150		135				Mc. M. C.
37	Private		100	100		75	.15	.15		Mc. C.
38			(70)	100		40				Mc.
39			900	1,710		1,500	.08			Mc. M. C.
40			750	700		750				Mc. M.
41	Private		375	850		450	.12 – .06			Mc. M. C.
42			2,524	6,670		5,000	.15 – .12	.10 – .03		Mc. M. O. C.
43			35	25		12				Mc.
44			150	125		75	.15			C.
45	Private		350	350		270	.125– .0875	.125– .0375		Mc. C.
46	Do		35	35		15				Mc. C.
47			440	330	225	310	.12 – .06	.10 – .025		Mc. M. C.
48	Private		350	500		325	.12 – .035	.10 – .015	Lexington & Traction & Terminal Co.	Mc. M. C.
49	Do		100	100		20½	.15			Mc.
50			125	150		90				Mc. C.
51			150	128		(80)				Mc.
52			1,200	1,200		800				Mc.
53			600	600		650				Mc. M.
54	Private		240	225		125	.13 – .08	.11 – .04		Mc. M. C.
55	Do		400	400		260	.13 – .08	.11 – .04		Mc. C.
56	Do		200	200		150	.13 – .08	.11 – .04		Mc. C.
57	Do		300	300		275	.13 – .08	.11 – .04		Mc. C.
58	Do		400	400		300	.13 – .08	.11 – .04		Mc. M. C.
59	Do		600	820		500	.13 – .08	.11 – .04		Mc. C.
60	Do		150	350	500	400	.13 – .08	.11 – .04		Mc. M. C.
61			100	150		100				Mc.
62			450	350		270				Mc.
63					54	30				Mc.
64			435	440		450				Mc. M.
65			250	300		225				Mc. M.
66									Consolidated Coal Co	Mc.
67			(50)	(75)		45				Mc.
68			350	325		290				Mc.
69	Private		450	168		75	.12 – .10	.12– .12		Mc. C.
70							.13			M.
71			(100)	100		100				Mc.
72	Private		750	970		700				Mc. C.
73									Consolidated Coal Co	Mc.
74	Private		60	32	6	28	.25			Mc. C.
75							.12 – .10	.04– .02	Kentucky Public Service Co	Mc. C.
76			400	165		100				Mc.
77			400	225		45				Mc.
78	Private		2,249	2,350		1,830	.10	.08– .01		Mc. M. C.
79	Do		750	750		465	.12 – .05			
80	Do		85	75		90	.125			Mc. C.
81	Do				40	25	.10			Mc. C.
82	Do		200	150		120				Mc.
83			200	185		150				Mc.
84					50	35				Mc.
	Total, A		40,433	71,090	1,035	53,284				

b J. G. White & Co. (Inc.), is not placed in alphabetical order.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

KENTUCKY—Continued.

B.—MUNICIPAL PLANTS.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
85		GD	Augusta	Augusta	Augusta	
86		GD	Bardstown	Bardstown	Bardstown	
87		GD	Bowling Green	Bowling Green		
88		GD	Brookville	Brookville	Brookville	
89		GD	Carrollton	Carrollton	Carrollton	
90		D	Eddyville	Eddyville		
91		GD	Falmouth	Falmouth	Falmouth	
92		GD	Harrodsburg	Harrodsburg	Harrodsburg	
93		GD	Henderson	Henderson	Henderson	
94		GD	Madisonville	Madisonville	Madisonville	
95		GD	Morehead	Morehead	Morehead	
96		GD	Murray	Murray	Murray	
97		GD	Nicholasville	Nicholasville	Nicholasville	
98		GD	Owensboro	Owensboro	Owensboro	
99		GD	Paducah	Paducah	Paducah	
100		GD	Russellville	Russellville	Russellville	
101		GD	State penitentiary	State penitentiary	Eddyville	
102		GD	Wickliffe	Wickliffe	Wickliffe	

C.—ALL OTHER PLANTS.

	Evansville Railways Co	H				
103	Owensboro City Railroad Co	G	Electric railway	Owensboro	Owensboro	
104	Kentucky Southwestern Electric Railway, Light & Power Co.	G	Paducah	Paducah	Paducah	
	Louisville Traction Co	H				
105	Louisville Railway Co	G	Electric railway	High Street	Louisville	
106	Do	G	do	Campbell Street	do	
107	Southern Traction Co	G	do	Bowling Green	Bowling Green	

LOUISIANA.

A.—PUBLIC UTILITY PLANTS.

1	Algiers Railway & Lighting Co	GTD	Algiers	Algiers	Algiers	
	Bernice Lumber Company (Ltd.)	H				
2	Bernice Electric Light Co	D	Bernice	Bernice		
3	Bunkie Ice Co	GD	Bunkie	Bunkie	Bunkie	
4	Central Light & Power Co	GD	Amite	Amite	Amite	
5	De Ridder Light & Power Co	GD	De Ridder	De Ridder	De Ridder	
6	Dunlap Electric Co	GD	Plaquemine	Plaquemine	Plaquemine	
7	Hammond Ice, Light & Bottling Co. (Ltd.)	GD	Hammond	Hammond	Hammond	
8	Hood Light Co	GD	Franklinton	Franklinton	Franklinton	
9	Houma Lighting & Ice Manufacturing Co	GD	Houma	Houma	Houma	
10	Jennings Gas & Electric Co	GD	Jennings	Jennings	Jennings	
11	Kennon, E. B., Electric Light Plant	GD	Kentwood	Kentwood	Kentwood	
12	Lake Charles Railway, Light & Water Works Co	GTD	Lake Charles	Lake Charles	Lake Charles	
13	Leesville Light & Water Works Co. (Ltd.)	GD	Leesville	Leesville	Leesville	
14	Mandeville Light & Ice Co	GD	Mandeville	Mandeville	Mandeville	
15	Mansfield Ice Co. (Ltd.)	GD	Mansfield and South Mansfield.	Mansfield	Mansfield	
16	Minden Electric Light & Power Co. (Ltd.)	GD	Minden	Minden	Minden	
17	Morgan City Electric Co. (Ltd.)	GD	Morgan City	Morgan City	Morgan City	
18	North Louisiana Light & Power Co	GD	Arcadia	Arcadia	Arcadia	
19	Patterson Light & Power Co	D	Patterson	Patterson	Patterson	
20	Ponchatoula Ice Co	GD	Ponchatoula	Ponchatoula	Ponchatoula	
21	St. Tammany Ice & Manufacturing Co	GD	Covington	Covington	Covington	
22	Shipp, Carl, Light Plant	D		Winnsboro		
23	Southwestern Gas & Electric Co	GD	Caddo and Bossier Counties.	Shreveport	Shreveport	
24	Stokoe, E. C., Light Plant	GD	Jeannette	Jeannette	Jeannette	
	Stone & Webster:					
25	Baton Rouge Electric Co	GTD	Baton Rouge	Baton Rouge	Baton Rouge	
	United Gas & Electric Corporation of Connecticut.	H				
26	Consumers Electric Light & Power Co	GD	New Orleans	New Orleans	New Orleans	
27	New Orleans Railway & Light Co	GTD	do	Elysian Fields	do	
28	Do	GTD	do	Market Street	do	
29	Do	GTD	do	Union Street	do	
30	Williams, F. B., Cypress Co			Patterson	Patterson	
31	Winnfield Ice & Light Co	GD	Winnfield	Winnfield	Winnfield	
32	Zwolle Light, Ice & Power Co	GD	Zwolle	Zwolle	Zwolle	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

KENTUCKY—Continued.

B.—MUNICIPAL PLANTS.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
85	Private		200	150		105	$0.10			Mc. C.
86										M.
87									Kentucky Public Service Co.	Mc.
88				60		30				Mc.
89			300	350		225				Mc.
90									State penitentiary	Mc.
91			200	90		50				Mc.
92			400	525		700				Mc.
93			1,775	2,000		1,800				Mc.
94			300	300		200				Mc.
95			125	90		50				Mc. C.
96			150	160		96				Mc.
97	Private		300	335		215	.03	$0.03		Mc. C.
98			1,800	2,800		2,000				Mc.
99			330	600		(360)				Mc.
100			375	150		180				Mc.
101										Mc.
102			120	120		75				Mc.
	Total, B		6,375	7,730		6,131				

C.—ALL OTHER PLANTS.

103	Private		600	700		600				C.
104			2,000	(2,500)		(1,500)				Mc.
105	Private		4,000	16,000		12,000				C.
106	Do		14,000	28,130		14,600				C.
107			700	700		450				Mc.
	Total, C		21,300	48,030		29,150				
	Grand total		68,108	126,850	1,035	88,565				

LOUISIANA.

A.—PUBLIC UTILITY PLANTS.

1			(600)	(1,000)		600	$0.20			M. Mc.
2										Mc.
3			200	100	120	100	.15	$0.05		C. Mc.
4			225	200		90				M. Mc.
5			300	220		150				Mc.
6	Private		300	250		165	.15	.075		C. Mc.
7			460	400		325	$0.15 - .075	$0.125- .04		C. Mc.
8			60		80	(50)				Mc.
9			275							Mc.
10	Private		200	360	150	250	.15 - .10	.08 - .025		C.
11			125	80		50				Mc.
12			1,200	2,370		1,700				M. Mc.
13	Private		200	150		330	[a] 1.25	[b] 60.00		C. M. Mc.
14	Do		200	155		75	.15			C. Mc.
15			70	130		100				Mc.
16	Private				160	150	.10		Steam from Minden Lumber Co.	C. Mc.
17	Do				565	400	.15	.04		C. Mc.
18			100	100		60				Mc.
19							.15		F. B. Williams Co.	C. Mc.
20			120	110	60	30				Mc.
21			290	344		555				Mc.
22										Mc.
23			2,750	2,250	1,200	2,600	.085- .05			C. M. Mc.
24	Private		125	200		160				C. Mc.
25	Do		940	1,400		2,115	.10 - .05	.09 - .04		C. M. Mc.
26			3,260	5,490		6,000	.12 - .06	.08 - .04	New Orleans Railway & Lighting Co.	C. M. Mc.
27	Private		3,700	5,775		3,800	.09 - .06			C. Mc.
28	Do		11,700	48,000		42,000	.09 - .06	.05 - .0075		C. M. Mc.
29	Do		4,400	7,400		8,700	.09 - .06			C. M.
30										C.
31			450	200		150				Mc.
32			200	100		65				Mc.
	Total, A		32,450	76,784	2,335	71,370				

[a] Lamp-month. [b] Horsepower-year.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

LOUISIANA—Continued.

B.—MUNICIPAL PLANTS.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
33		GD	Abbeville	Abbeville	Abbeville	
34		GD	Alexandria	Alexandria	Alexandria	
35		GD	Bastrop	Bastrop	Bastrop	
36		GD	Berwick	Berwick	Berwick	
37		GD	Boyce	Boyce	Boyce	
38		GD	Crowley	Crowley	Crowley	
39		GD	Donaldsonville	Donaldsonville	Donaldsonville	
40		GD	Franklin	Franklin	Franklin	
41		GD	Homer	Homer	Homer	
42		GD	Houma	Houma	Houma	
43		GD	Lafayette	Lafayette	Lafayette	
44		GD	Lake Providence	Lake Providence	Lake Providence	
45		GD	Marksville	Marksville	Marksville	
46		GTD	Monroe	Monroe	Monroe	
47		GD	Napoleonville	Napoleonville	Napoleonville	
48		GD	Natchitoches	Natchitoches	Natchitoches	
49		GD	New Iberia	New Iberia	New Iberia	
50		GD	New Roads	New Roads	New Roads	
51		GD	Opelousas	Opelousas	Opelousas	
52		GD	Rayne	Rayne	Rayne	
53		GD	Ruston	Ruston	Ruston	
54		GD	St. Francisville, Bayou Sara	Sr. Francisville	St. Francisville	
55		GD	Tallulah	Tallulah	Tallulah	
56		GD	Thibodaux	Thibodaux	Thibodaux	
57		GD	Vidalia	Vidalia	Vidalia	

C—ALL OTHER PLANTS.

58	Shreveport Railways Co	G	Electric railway	Shreveport	Shreveport	
59	Southern Traction & Power Co	G	do	Alexandria	Alexandria	
60	Southwestern Traction & Power Co	G	do	New Iberia	New Iberia	

MAINE.

A.—PUBLIC UTILITY PLANTS.

1	Atlantic Shore Railway Co	GTD	Sanford	Estes		Mousam River
2	Do			Kennebunk	Kennebunk	
3	Do			Kittery Park	Kittery Park	
4	Bartlett, C. H., Manufacturing Co	GD	North New Portland	North New Portland	North New Portland	Gilman
5	Bath & Brunswick Light & Power Co	GD		Bath		
6	Do		Brunswick	Brunswick	Brunswick	Androscoggin River
7	Belgrade Power Co	GD	Belgrade Lakes and Rome	Belgrade Lakes		
8	Booth Bay Harbor Electric Light & Power Co	D	Booth Bay Harbor	Booth Bay Harbor		
9	Bridgton Water & Electric Co	GD	Bridgton	Bridgton	Bridgton	Stearns Brook
10	Bridgewater Electric Co	D	Bridgewater Center	Bridgewater Center		
11	Brownville Electric Light & Power Co	D	Brownville	Brownville		
12	Buckfield Water Power & Electric Co	GD	Buckfield	Buckfield		
13	Cabot Manufacturing Co			Brunswick		Androscoggin River
14	Calais Street Railway Co	GD		Calais		
15	Do			do		
16	Carabassett Light & Power Co	D	North Anson	North Anson		
17	Caribou Water, Light & Power Co	GD	Caribou	Caribou	Caribou	Aroostook River
18	Central Maine Power Co	GTD	Kennebec, Sagadahoc, Somerset, Waldo and Penobscot counties.	Augusta		Kennebec River
19	Do			Benton		
20	Do			Farmingdale		
21	Do			Pittsfield		Sebasticook River
22	Do			Showhegan		
23	(Lessor, Shawmut Manufacturing Co	L		Shawmut		
24	Cherryfield Electric Light Co	GD	Cherryfield and Millbridge	Cherryfield	Cherryfield	
	Clark, E. W., & Co. Mgt. Corporation	M				
25	Bangor Power Co	GTD	Oldtown and Brewer	Milford	Milford	Penobscot River
26	Do		Penobscot County	Veazie	Veazie	do
27	Bar Harbor & Union River Power Co	GD	Hancock County	Bar Harbor	Bar Harbor	
28	Do			Ellsworth	Ellsworth	Union River
29	Cumberland Co. Power & Light Co	HGTD	Cumberland County	Bonny Eagle	Bonny Eagle	Saco River
30	Do			North Gorham	North Gorham	Presumpscot River
31	Do			Portland	Portland	
32	Do			West Buxton	West Buxton	Saco River
33	Lewiston, Augusta & Waterville Street Ry. Co			Freeport		
34	Do			Hallowell		
35	Do			Lewiston		
36	York County Power Co	GD	York County	Biddleford	Biddleford	
37	Do			Sanford	Sanford	Mousam River
38	Do			York Harbor	York Harbor	
39	Lessor, Portland R. R. Co			Portland, No. 1		
40	Do			Portland, No. 2		

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

LOUISIANA—Continued.

B.—MUNICIPAL PLANTS.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
33			(120)	(200)		125				Mc.
34			888	2,467		1,850	$0.10–$0.04			C. Mc.
35					100	80				C. Mc.
36					65	50				C.
37			150	150		75				Mc.
38			250	375		672				Mc.
39	Private				340	150	.20– .10	$0.08–$0.03		C. Mc.
40			400	290		150				Mc.
41			100	100		75				Mc.
42			230	180		120				Mc.
43	Private		450	581		375	.10– .05	.06– .03		C. Mc.
44			225	185		125				Mc.
45			100	100		45				Mc.
46			400	300		200				Mc.
47			120	75	50	(110)				Mc.
48			160	340		240	.16– .10	.10– .05		C. Mc.
49	Private		600	425		400	.12– .06	.08– .035		C. Mc.
50			125	90		52				Mc.
51			285	425		215				Mc.
52	Private		200	120	60	60	.15– .10	.06– .03		C. Mc.
53			300	277		240				Mc.
54			250	96		60				Mc.
55	Private		200	205		125	.15			C. Mc.
56	Do				240	85	.10– .05			C. Mc.
57			225	225		145				Mc.
	Total, B		5,778	7,206	855	5,824				

C—ALL OTHER PLANTS.

58	Private		1,650	2,450		1,500				C. Mc.
59		160	400	600		510				Mc.
60	Private		500	450		200				C. Mc.
	Total, C	160	2,550	3,500		2,210				
	Grand total	160	40,778	87,490	3,190	79,404				

MAINE.

A.—PUBLIC UTILITY PLANTS.

1	Private	1,000				600		$0.10–$0.01	York Co. Power Co.	M.Mc.O.C.
2			475	250		300				Mc.
3			775	850		560				Mc.
4	Private	125	80	70		25				Mc. C.
5			1,200	650		550	$0.10–$0.08	.10– .023		Mc. M. P.
6		1,500	376	475		1,500	.10– .08	.10– .023		M. Mc. P.
7		200			75	150				Mc.
8									Portland Power & Development Co.	Mc.
9		375	150	225		270				Mc. M. C.
10									Maine & New Brunswick Electric Power Co.	Mc.
11										
12		(25)				20				Mc.
13		3,300				700				M. O.
14		600				200				Mc. M.
15			200	175		300				M.
16									Central Maine Power Co.	C.
17	Private	350	(100)	150		200	.10– .05	.10– .02		Mc. C.
18									Shawmut Manufacturing Co.	Mc. O.
19										Mc. O.
20		17,000	4,000	6,700		14,000				M.
21										Mc. O.
22										Mc.
23		(3,700)				(2,250)				M. Mc.
24		80	125			35				Mc.
25	Private	9,200				7,800		.005		Mc.M.O.C.
26	Do	2,700	1,800	1,800		2,925		.009	Bar Harbor & Union River Power Co.	Mc.M.O.C.
27			1,250	700		600				Mc. C.
28	Private	3,300				2,250	.25– .02	.006		Mc.M.O.C.
29										O. Mc. M.
30		22,000	5,070	10,000		19,220				O. Mc. M.
31										
32										O. Mc. M.
33			(200)	160		200				Mc.
34										Mc.
35			1,600	1,720		1,000				Mc.
36			1,200	2,840		1,860				Mc.
37		130	250	400		440	.10– .025	.07– .025	Cumberland County Power & Light Co.	Mc. C.
38			500	770		440				Mc.
39										
40										

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

MAINE—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
41	Clark Power Co	GD	York County	Clarks Mills		
42	Cornish & Kezar Falls Light & Power Co	GD	York and Oxford Counties	Kezar Falls	Kezar Falls	Great Ossipee
43	Danforth Electric Light Co	GD	Danforth	Danforth	Danforth	Baskahegan
44	Dixfield Light & Improvement Co	GD	Dixfield and Peru	Dixfield	Dixfield	
45	Easton Electric Co	D	Easton	Easton		
46	Eastport Electric Light Co	D	Eastport	Eastport		
47	Emerson Lumber Co	GD	Island Falls	Island Falls	Island Falls	Mattawamkeag River.
48	Farmington Power Co	GD	Farmington	Farmington		
49	Fort Fairfield Light & Power Co	D	Fort Fairfield	Fort Fairfield		
50	Fort Kent Electric Co	GD	Fort Kent and Clare, New Brunswick.	Fort Kent		
51	Franklin Power Co	GD	Franklin and Somerset Counties.	Farmington		
52	Greenville Light & Power Co	GD	Piscataquis County	Foxcroft		
53	Do	GD	do	Greenville		
54	Hartland Electric Light Co	D	Hartland and St. Albans	Hartland		
55	Houlton Mills & Light Co	GD	Houlton	Houlton		
56	Huse Spool & Bobbin Co	GD	Kingfield	Kingfield		
57	International Paper Co	GD		Livermore	Livermore Falls	Androscoggin
58	Jordan Lumber Co			Milford	Milford	
59	Limerick Water & Electric Co	GD	York, Cumberland and Oxford Counties.	Limerick	Limerick	Little Ossippee River.
60	Limestone Light & Power Co	D	Limestone	Limestone	Limestone	
61	Livermore Falls Light & Power Co	D	Livermore Falls and vicinity	Livermore Falls		
62	Machias Electric Light Co	GD	Machias	Machias	Machias	
	Maine Railways, Light & Power Co	H				
63	Androscoggin Electric Co	GD	Lewiston and Auburn	Lewiston		
64	Mechanics Falls Electric Light Co	GD	Androscoggin and Oxford Counties.	Mechanics Falls	Mechanics Falls	Little Androscoggin River.
65	Norway-Paris Street Railway Co	GTD	Norway and South Paris	Norway		
66	Do			Paris		
67	Rockland, Thomaston & Camden Street Railway Co.	GTD	Rockland, Camden, Warren, Rockport.	Rockland	Rockland	
68	Mallison Power Co	GD	South Windham and Westbrook.	South Windham	South Windham	Presumpscot River
69	Merrill Mill Co	GD	Patten	Patten	Patten	Mattawomkeag
70	Merrill-Springer Co	GD	Bethel	Bethel	Bethel	
	Middle West Utilities Co	H				
71	Berwick & Salmon Falls Electric Co	GD	South Berwick	South Berwick		
72	Milo Electric Light & Power Co	GD	Milo	Milo		
73	Monmouth Electric Co	D	Monmouth	Monmouth	Monmouth	
74	Monticello Electric Co	D	Monticello	Monticello		
75	Monson Light & Power Co	GD	Monson	Monson	Monson	
	Mooers, G. H	GD				
76	(Lessor, Ashland Electric Co.)	L	Ashland and Sheridan	Ashland	Ashland	Big Machias
	New England Securities Co	H				
77	Lisbon Falls Electric Co	GD	Androscoggin County	Lisbon Falls		
78	Yarmouth Lighting Co	GD	Yarmouth and Yarmouthville.	Yarmouth	Yarmouth	Royals River
79	Newport Light & Power Co	GD	Newport and Detroit	Detroit	Detroit	
80	North Chesterfield Light & Power Co	D		North Chesterfield		
81	Peaks Island Light Co	GD	Peaks Island	Peaks Island	Peaks Island	
82	Pennamaquam Power Co	GTD	Eastport	Pembroke		
83	Penobscot Bay Electric Co	GD	Waldo and Hancock Counties.	Belfast		
84	Do			East Orland		
85	Do			Searsport		
86	Petts, Joseph, Grist Mill	D	Harrison	Harrison		
87	Phillips Electric Light & Power Co	GD	Phillips	Phillips	Phillips	Sandy River.
88	Piscataquis Woolen Co	GD	Guilford	Guilford	Guilford	Piscataquis River
89	Portland, Gray & Lewiston R. R. Co	D	Gray and New Gloucester	Lewiston		
90	Portland Power & Development Co	GD	Lincoln County	Damariscotta		
91	Rangeley Light & Power Co	GD	Rangeley	Rangeley	Rangeley	
92	Readfield Light & Power Co	GD	Readfield	Readfield		
93	Rumford Falls Light & Water Co	D	Rumford and Mexico	Rumford		
94	Rumford Falls Power Co	GD	Rumford	Rumford Falls	Rumford	Androscoggin River.
95	Staples, E. L., Light Plant	GD	Turner and Turner Center	Turner		
96	Stockholm Lumber Co	D	Stockholm	Stockholm		
97	Stratton Electric Light Co	GD	Stratton	Stratton	Stratton	
98	Swan Falls Power Co		Fryeburg, Conway, and Conway Center.	Fryeburg	Fryeburg	Saco River.
99	Thompson, C. A., & Co	GD	New Sharon	New Sharon		Sandy River
100	Van Buren Light & Power Co	D	Van Buren	Van Buren	Van Buren	
101	Waldoboro Water, Electric Light & Power Co	GD	Waldoboro	Waldoboro		
102	Wilton Light Co	D	Wilton	Wilton		
103	Winthrop & Wayne Light & Power Co	GD	Kennebec County	Winthrop		
104	Wiscasset Electric Light & Power Co	D	Wiscasset	Wiscasset		

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued

MAINE—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
41		(500)				312				Mc.
42	Private	380				250	$0.10	$0.06–$0.03		Mc. C.
43	Do	200				150	.10	.04		C.
44			200	100		(60)				Mc.
45									Maine & New Brunswick Electric Power Co.	Mc.
46									Pennamaquan Power Co	Mc.
47	Private	175	300	150		60	.15			Mc. C.
48									Franklin Power Co	Mc.
49									Maine & New Brunswick Electric Power Co.	Mc.
50		125				100				Mc.
51		800				600				Mc.
52		440	310	500		300			Central Maine Power Co	Mc.
53		800				550				Mc.
54										Mc.
55		300	200	150		175				Mc.
56			100	100		(90)				Mc.
57	Private	9,200	300	200		1,300		[a]20.00		C.
58	Do		700	585		138				C.
59	Do	474				300	.10	.07– .013	Cumberland County Power & Light Co.	P. C.
60									Maine & New Brunswick Electric Co. (Ltd.).	C.
61									International Paper Co	Mc.
62	Private	225	125	125		100	.10			Mc. C.
										Mc. M.
63		1,200				930				Mc.
64	Private	150	150	150		150	.09	.07– .02		Mc. M. C.
65		736	600	500		639				Mc. M.
66		600	600	600		750				Mc.
67			500	1,350		1,500			Central Maine Power Co	Mc.
68		1,000				721	$0.10– .05			Mc. C.
69	Private	80	210	210		65	.125			Mc. C.
70			250	(165)		150				
71		600				600				Mc.
72		500				300				Mc.
73	Private						.10	.10	Lewiston, Augusta & Waterville (St. Ry. Co.).	C.
74									Maine & New Brunswick Electric Power Co.	Mc.
75		75	(50)	45		70			Greenville Light & Power Co	Mc.
76		90				100	.12			Mc. C.
77		150				100	.15– .12	.07– .03	Worumbo Mfg. Co	M. M. C.
78	Private	100	135	125		150	.10	.10– .03		M. C.
79		250	100	75		150				Mc.
80										Mc.
81			200	200		115				Mc.
82		243				150				Mc. M.
83		200	200	250		700				Mc.
84		1,000				500				Mc.
85			185	161		108				Mc.
86										
87		110				30	.15– .10			Mc. C.
88	Private	250	200	125		150	.10		Greenville Light & Power Co	Mc. C.
89									Androscoggin Electric Co	Mc.
90		850	75			275				Mc. M.
91					80	60				
92		98				50				Mc.
93									Rumford Falls Power Co	Mc.
94	Private	15,000				10,000	[b]20.00			Mc. M. P. C.
95		60				(35)				Mc.
96										
97				70		45				
98	Private	300				200	.20– .10	.06		C.
99	Do	50				60	.10			C.
100									Maine & New Brunswick Electric Power Co.	Mc.
101		125				65				Mc.
102									Franklin Power Co	Mc.
103		200				135			Central Maine Power Co	Mc.
104									Portland Power & Development Co.	Mc.
	Total, A	103,221	25,041	33,871	155	81,933				

[a] Horsepower-year.

[b] Lamp-mantle.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

MAINE—Continued.

B.—MUNICIPAL PLANTS.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
105		GD	Bangor	Bangor		Penobscot River
106		GD	Houlton	Houlton	Houlton	
107		GD	Kennebunk	Kennebunk		
108		GD	Lewiston	Lewiston		
109		GD	Madison and South Anson	Madison	Norridgewock	Sandy River

C.—ALL OTHER PLANTS.

110	Androscoggin Pulp Co		Manufacturing	Windham	South Windham	Presumpscot River
111	Do		do	Steep Falls	Standish	Saco River
112	Atlantic Shore Railway Co	GT	Electric railway	Old Falls	Old Falls	Mousam River
113	Edwards Manufacturing Co	G	Manufacturing	Augusta	Augusta	Kennebec River
114	Fort Hill Chemical Co		do	Rumford	Rumford	Androscoggin River
115	Great Northern Paper Co			Millinocket		West branch Penobscot River.
116	Hollingsworth & Whitney Co			Gardiner		Cobbosseecontee River
117	Do			Madison		Kennebec River
118	Do			Waterville		do
119	International Paper Co		Manufacturing	Jay	Jay	Androscoggin River
120	Do			Otis	Chisolm	do
121	Do		Manufacturing	Riley	Riley	do
122	Do		do	Rumford Falls	Rumford Falls	do
123	Do		do	Solon	Solon	Kennebec River
124	Do		do	Webster	Webster	Stillwater River
125	Do		do	West Enfield	West Enfield	Penobscot River
126	Pejepscot Paper Co		do	Bowdoin	Topsham	Androscoggin River
127	Do		do	Lisbon Falls	Lisbon	do
128	Do		do	Pejepscot Mills	Topsham	do
129	Do		do	Topsham Mills	do	do
130	Pepperell Manufacturing Co		do	Biddeford	Biddeford	Saco River
131	Publishers Paper Co			Bar Mills		
132	St. Croix Paper Co			Grand Falls		
133	Do			Woodland		
134	Union Water Power Co			Lewiston	Lewiston	
135	Walker, James, Co			Orono		Penobscot River
	Warren, S. D., & Co.:					
136	(Lessor, S. D. Warren Mill Trust)		Manufacturing	Capscook Mill	Gardiner	Cobbasseecontee
137	Do		do	Cumberland Mills	Westbrook	Presumpscot River
138	Presumpscot Electric Co		do	Dundee	Gorham	do
139	Do		do	El Weir	Standish	do
140	Do		do	Saccarappa	Westbrook	do
141	Do		do	Smelt Hill	Falmouth	do
142	Worumbo Manufacturing Co			Lisbon	Lisbon	Androscoggin River

MARYLAND.

A.—PUBLIC UTILITY PLANTS.

1	Antietam Electric Light & Power Co	GD	Boonsboro, Sharpsburg, and vicinity.	Boonsboro		Antietam Creek
2	Bel Air Electric Co	GD	Bel Air, Benson, Fallston	Bel Air, No. 1	Near Bel Air	Winter's Run
3	Do		Fork and Kingsville	Bel Air, No. 2	Near Wheel	do
4	Bucky, E. A. C	GD	Union Bridge	Union Bridge		
5	Cambridge Gas, Electric Light & Power Co	GD	Cambridge	Cambridge	Cambridge	
6	Capitol Traction Co	GD		Chevy Chase	Chevy Chase	
7	Chestertown Electric Light & Power Co	GD	Chestertown	Chestertown	Chestertown	
8	Consolidated Gas, Electric Light & Power Co. of Baltimore.	HGTD		Baltimore	Baltimore	
9	Do		Ellicott City and vicinity	Ellicott City	Ellicott City	
10	Do			Ilchester	Ilchester	Patapsco River
11	Baltimore County Electric Co	D	Baltimore	Baltimore		
12	Baltimore Electric Co	GD	Anne Arundel and Howard Counties.	do	Baltimore	
13	Mt. Washington Electric Light & Power Co	GD		Mount Washington	Mount Washington	
14	Roland Park Electric & Water Co					
15	Consolidated Coal Co			Midland		
16	Consolidated Public Utilities Co	GD	Westminster	Westminster	Westminster	
17	Crisfield Ice Manufacturing Co	GD	Crisfield	Crisfield	Crisfield	
18	Delmarvia Utilities Co	GD				
19	Easton Fuel & Light Co	GD	Easton and Salisbury	Easton	Easton	
20	Edison Electric Illuminating Co. of Cumberland	GD	Cumberland	Cumberland	Cumberland	
21	Electric & Ice Manufacturing Co	GD	Pocomoke City	Pocomoke City	Pocomoke City	
22	Ellston Electric Light & Power Co	D	Ellston	Ellston	Ellston	
23	Emmitsburg Electric Co	D	Emmitsburg	Emmitsburg	Emmitsburg	
24	Gilpen Falls Electric Co	GD	Ellston, Bayview, and vicinity.	Ellston		

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

MAINE—Continued.

B.—MUNICIPAL PLANTS.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from	Source of information.
105		831	650	500		500				Mc. C.
106			125	125		150			Maine & New Brunswick Electric Power Co.	
107		65	250	180		100			York Co. Power Co	Mc.
108		500				400				Mc.
109		600				300				Mc.
	Total, B	1,996	1,025	805		1,450				

C. ALL OTHER PLANTS.

110	Private	1,998	1,000	1,100						O. C.
111	Do	1,524								O. C.
112	Do	2,100				1,500			York Co. Power Co	C.
113	Do	4,000				400				C.
114	Do	1,500				610			Rumford Falls Power Co	C.
115		24,500								M. O.
116		15,700								M. O.
117										M. O.
118										M. O.
119	Private	3,100				2,500				M. O. C.
120		9,000	5,200	3,600						C.
121	Private	5,600	275	250		96				O. C.
122	Do	9,500	5,100	3,200		937½				C.
123	Do	3,500	250	70		15				C.
124	Do	3,250	900	700		607½				C.
125	Do	2,600	200	75		15				C.
126		900	450							M. C.
127		1,100	1,500	900						M. C.
128		7,200	1,350	900						M. C.
129		5,500	150							M. C.
130	Private	7,000	5,850	10,800		2,388				O. C.
131		3,000								O.
132		12,000								M. O.
133		13,000								O.
134		[a] 18,400								C.
135		3,000								O.
136	Private	300	1,500							C.
137	Do	2,500	6,500	5,000		2,400			Presumpscot Electric Co	C.
138	Do	2,800				2,100				C.
139	Do	3,000				1,800				C.
140	Do	2,400				1,350				C.
141	Do	1,200				1,100				C.
142	Do	1,200	1,000			250				C
	Total, C	172,372	31,225	26,595		18,069				
	Grand total	277,589	57,291	61,271	155	101,452				

MARYLAND.

A.—PUBLIC UTILITY PLANTS.

1		245	125	125		150				Mc. P.
2	Private	144				80	$0.10 –$0.05	$0.08–$0.05		Mc. C. P.
3	Do	212				130	.10 – .05	.08– .05		Mc. C.
4		40				30				Mc.
5			400	400	85	200	.10			M.
6										Mc.
7			180	62		50				Mc.
8			19,026	47,420		35,500				Mc. P.
9			200	250	250	435				M. Mc.
10	Private	1,000				600	.085– .05		Penna. Water & Power Co	M. Mc.
11										M.
12			6,000	8,040		6,000				M. P.
13			650	750		550				M. Mc.
14										M.
15										Mc.
16			400	400		150				Mc.
17			450	350		305				Mc. P.
18			325	285		242				P.
19			800	600		650				M. Mc.
20			1,943	3,273		2,500				M. Mc. P.
21			300	200		140				Mc.
22									Gilpen Falls Electric Co	Mc.
23									Hagerstown & Frederick Ry. Co.	Mc. P.
24		325				200				Mc.

[a] Includes wheels of lessees.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

MARYLAND—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
25	Hagerstown & Frederick Railway Co	GTD	Frostburg, Hagerstown, Williamsport, and vicinity.	Frostburg	Frostburg	
26	Do			Security	Security	
27	Havre de Grace Electric Co	GD	Havre de Grace	Havre de Grace	Havre de Grace	
28	Home Electric Light Co	GD	Lonaconing	Lonaconing	Lonaconing	
29	Home Manufacturing, Light & Power Co	D	Elkton and Chesapeake City	Elkton		
30	Idlewild Electric Light, Heat & Power Co	GD	Federalsburg and vicinity	Federalsburg		
31	Midland Electric Light Co	D	Midland	Midland	Midland	
32	Mountain Lake Park Association	GD	Mountain Lake Park	Mountain Lake Park	Mountain Lake Park	
33	New Windsor Electric Light & Water Co	GD	New Windsor	New Windsor	New Windsor	
34	Oakland Electric Co	GD	Oakland	Oakland	Oakland	
35	Peninsular Light & Power Co	GD	Denton, Greensboro, and vicinity.	Denton		Chaplain River
36	Perryville Electric Co	GD	Perryville and Principio	Perryville	Perryville	
37	Port Deposit Electric Co	D	Port Deposit	Port Deposit	Port Deposit	
38	Salisbury Light, Heat & Power Co	GD	Salisbury	Salisbury		
39	Snow Hill Electric Light & Power Co	GD	Snow Hill	Snow Hill	Snow Hill	
40	Sussex Light & Power Co	GD				
41	United Railways & Electric Co. of Baltimore	GTD		Bay Shore	Bay Shore	
42	Do	GTD		Light Street	Light Street	
43	Do	GTD		Owings Mills	Owings Mills	
44	Do	GTD		Pratt Street	Pratt Street	
	Washington, Baltimore & Annapolis Electric R. R. Co.	H				
45	Annapolis Public Utilities Co	D	Annapolis and Eastport	Annapolis		

B.—MUNICIPAL PLANTS.

46		D	Aberdeen	Aberdeen	Aberdeen	
47		GD	Centerville	Centerville	Centerville	
48		GD	Cumberland	Cumberland	Cumberland	
49		GD	Frederick	Frederick	Frederick	
50		GD	Hagerstown	Hagerstown	Hagerstown	
51		GD	Laurel	Laurel	Laurel	
52		D	Williamsport	Williamsport	Williamsport	

C.—ALL OTHER PLANTS.

53	Baltimore & Ohio R. R. Co	G	Electric railroad	Baltimore	Baltimore	
	Doherty Operating Co	M				
54	Cumberland Westernport Electric Ry. Co.	G		Clarysville	Clarysville	
55	Do	G		Reynolds	Reynolds	
56	Savage Manufacturing Co		Manufacturing	Savage	Savage	Little Paterpent

MASSACHUSETTS.

A.—PUBLIC UTILITY PLANTS.

1	Agawam Electric Co	D	Agawam and West Springfield.	Agawam		
2	American Woolen Co	D		Maynard		
3	Amherst Gas Co	TD	Amherst, Sunderland, Whately, and Hatfield.	Amherst		
4	Attleboro Steam & Electric Co	GD	Attleboro	Attleboro	Attleboro	
5	Beverly Gas & Electric Co	GD	Beverly, Wenham, and Hamilton.	Beverly	Beverly	
6	Block Plant Electric Light Co	D		Boston		
7	Bossidy, J. F., Electric Light Plant	D	West Stockbridge	West Stockbridge		
	Boston Electric Associates	H				
8	Buzzards Bay Electric Co	GD	Falmouth, Barnstable, Hyannis, Sandwich, Oak Bluffs, Tisbury, and Edgarton.	Falmouth	Falmouth	
9	Vineyard Lighting Co	GD	do	Oak Bluffs	Oak Bluffs	
	Boston & Maine R. R. Co	H				
10	Conway Electric Street Ry. Co	GD		Conway	Conway	
11	Cambridge Electric Light Co	GD	Cambridge and Belmont	Cambridge	Cambridge	
12	Charlemont Electric Light & Power Co	GD	Charlemont	Charlemont		
13	Charlestown Gas & Electric Co	D	Charlestown	Charlestown		
14	Chester Electric Light Co	GD	Chester	Chester	Chester	West Branch Westfield River.
15	Citizens Gas, Electric Light & Power Co	GD	Nantucket	Nantucket	Nantucket	
	Commonwealth Gas & Electric Cos	H				
16	Athol Gas & Electric Co	GD	Worcester and Franklin Counties.	Athol	Wendell	Millers River

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

MARYLAND—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
25			500	575		400				M. Mc. P.
26			2,250	5,330		4,000				M. Mc. P.
27			400	430		285				Mc. P.
28			600	400		350				Mc. P.
29									Wilmington & Philadelphia Traction Co.	Mc. P.
30		213	250	195		155				Mc.
31									Colsolidated Coal Co.	Mc.
32			200	150		120				Mc.
33					45	50				Mc. P.
34			250	150		120				Mc.
35	Private	160	150	150	125	227½	$0.12–$0.09	$0.08–$0.025		Mc. C.
36			125	80		50				Mc. P.
37										Mc. P.
38		200	475	500		500				Mc.
39			125	215		120				Mc. P.
40			450	775		555				P.
41			(2,000)	2,250		1,675				M. Mc.
42			(2,400)	3,000		2,000				M. Mc.
43			(1,200)	1,625		1,080				M. Mc.
44			(40,000)	55,000		37,300				M. Mc.
45									Potomac Electric Power Co.	Mc.
	Total, A	2,539	82,154	132,980	505	96,899				

B.—MUNICIPAL PLANTS.

46										Mc.
47			245	175		125				Mc.
48			950	500		250				Mc.
49			200	200		(120)				Mc.
50			2,000	1,508		2,000				Mc.
51			300	150		100				Mc.
52									Hagerstown & Frederick Ry. Co.	Mc.
	Total, B		3,695	2,533		2,595				

C.—ALL OTHER PLANTS.

53			3,250	3,350		2,860			Colsolidated Gas, Electric Light & Power Co.	Mc.
54			1,475	1,750		1,250				M. Mc.
55										Mc.
56	Private	750	900	800						C.
	Total, C	750	5,625	5,900		4,110				
	Grand total	3,289	91,474	141,413	505	103,604				

MASSACHUSETTS.

A.—PUBLIC UTILITY PLANTS.

1									Turners Falls Power & Electric Co.	Mc. C.
2										Mc.
3									Turners Falls Power & Electric Co.	M. Mc. C.
4			1,500	2,850		2,250	$0.13–$0.10	$0.07–$0.0175		M. Mc.
5			700	1,920		2,000	.11	.10– .03		M. Mc.
6										Mc.
7									Stockbridge Lighting Co.	Mc.
8			400	680		450				M. Mc.
9			650	920		615				M. Mc.
10										M. Mc.
11			3,200	8,670		6,500	.11– .01	.05– .0175		M. Mc.
12		100	100	40		425				Mc.
13									Edison Electric Illuminating Co. of Boston.	
14	Private	52			15	28	.20	.045		Mc. C.
15			175	85	114	110	.20			M. Mc.
16	Private	2,200	625	925		2,040	.14– .09	.10– .02		M. Mc. C.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY, **MASSACHUSETTS**—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
17	Deerfield River Electric Light Co	D	Conway	Conway		
18	Easthampton Gas Co	GD	Easthampton and Southampton.	Mount Tom, No. 1	Mount Tom	
19	Do			Mount Tom, No. 2	do	
20	Edison Electric Illuminating Co. of Boston	GD	Eastern Massachusetts	"L" Street	Boston	
21	Do			Waltham	Waltham	
22	Do			Whitman	Whitman	
23	Fall River Electric Light Co	GD	Fall River, Somerset, Freetown, and Swansea.	Fall River	Fall River	
24	Franklin Electric Light Co	D	Turners Falls, Montague City, and Millers Falls.	Turners Falls		
25	Gardner Electric Light Co	GD	Gardner, Templeton, Westminster, and vicinity.	Gardner	Gardner	
26	Gloucester Electric Co	GD	Gloucester, Rockport, and Essex.	Gloucester	Gloucester	
27	Great Barrington Electric Light Co	GD	Berkshire County	Great Barrington	Great Barrington	Housatonic River
28	Greenfield Electric Light & Power Co	GD	Franklin County	Gardner Falls	Buckland	Deerfield River
29	Do	GD	do	Greenfield	Greenfield	Green River
30	Holyoke Water Power Co	GTD	Holyoke and South Hadley.	Holyoke	Holyoke	
31	Do	GTD		do	do	Connecticut River
32	Huntington Electric Light Co	GD	Huntington	Huntington	Huntington	Westfield River
33	Lawrence Gas Co	GD	Essex County	Lawrence		
34	Lee Electric Co	GD	Lee and Lenox	Lee	Lee	Green Water and Goose Pond.
35	Lenox Electric Co	D	Lenox	Lenox		
36	Ludlow Electric Light Co	D	Ludlow	Ludlow		
37	Ludlow Manufacturing Associates	GD	do	do	Ludlow	
38	Do	GD	do	do	do	Chicopee River
39	Do	GD	do	Red Bridge	Wilbraham	do
40	Lynn Gas & Electric Co	GD	Essex County	Lynn	Lynn	
41	Manchester Electric Co	D	Manchester	Manchester		
42	Marion Gas Co	GD	Marion and Onset	Marion	Marion	
43	Marlboro Electric Co	GD	Marlboro, Berlin, Bolton	Marlboro	Marlboro	
44	Lessor, Westboro Gas & Electric Co	L	Westboro	Westboro		
	Massachusetts Lighting Cos	H				
45	Adams Gas Light Co	D	Adams and Cheshire	North Adams		
46	Ayer Electric Light Co	GD	Ayer and Groton	Ayer	Ayer	
47	Clinton Gas Light Co	GD	Clinton and Lancaster	Clinton	Clinton	
48	Harvard Gas & Electric Co	D	Harvard			
49	Leominster Electric Light & Power Co	GD	Lunenburg and Leominster.	Leominster	Leominster	
50	Milford Electric Light & Power Co	GD	Milford and Hopedale	Milford	Milford	
51	Mill River Electric Light Co	D	Williamsburg	Williamsburg		
52	North Adams Gas Light Co	GD	North Adams and Clarksburg.	North Adams	North Adams	
53	Northampton Electric Lighting Co	GD	Northampton	Northampton	Northampton	
54	Spencer Gas Co	D	Spencer	Spencer		
55	Williamstown Gas Co	D	Williamstown	Williamstown		
56	Middletown Electric Light Co	D	Middletown	Middletown		
57	Milford & Uxbridge Street Ry. Co	GD		Milford	Milford	
58	Monument Mills Hydro-Electric Plant	GTD	Berkshire County	Housatonic, No. 1		
59	Do	GTD	do	Housatonic, No. 2		
60	Nashua River Paper Corporation	GT	East Pepperell	East Pepperell	East Pepperell	
61	New Bedford Gas & Edison Light Co	GD	New Bedford, Fairhaven, Acushilet.	New Bedford	New Bedford	
62	Newburyport Gas & Electric Co	GD	Newburyport	Newburyport	Newburyport	
	New England Investment & Security Co	H				
63	Springfield Street Ry. Co	GTD		Springfield		
64	Do	GTD		Westfield		
65	Worcester Consolidated Street Ry. Co	GTD		Charlton City	Charlton City	
66	Do	GTD		Leominster	Leominster	
67	Do	GTD		Millbury	Millbury	
68	Do	GTD		West Berlin	West Berlin	
69	Do	GTD		Worcester	Worcester	
	New England Power Co. of Maine	H				
70	Connecticut River Transportation Co	GTD	Southeastern Vermont, southwestern New Hampshire, northern Rhode Island, and various towns in Massachusetts.	Deerfield, No. 2	Conway	Deerfield River
71	Do	GTD	do	Deerfield, No. 3	Buckland	do
72	Do	GTD	do	Deerfield, No. 4	do	do
73	Do	GTD	do	Deerfield, No. 5	Florida	do
74	North Dana Electric Light Co	GD	Dana and North Dana	North Dana		
75	Norton Electric Light & Power Co	GD	Chartley	Chartley		
	Parker, C. D., & Co. (Inc.)	M				
76	Amesbury Electric Light Co	GD	Amesbury and Salisbury	Amesbury	Amesbury	
77	Blackstone Electric Light Co	D	Blackstone and Millville	Blackstone		
78	Central Massachusetts Electric Co	GD	Hampden, Hampshire, Worcester Counties.	Palmer	Palmer	Quaboag River
79	Provincetown Light & Power Association	GD	Provincetown	Provincetown	Provincetown	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

MASSACHUSETTS—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
17										Mc.
18			1,900	4,868		3,500	$0.15		Turners Falls Power & Electric Co.	M. Mc.
19										Mc.
20			38,088	140,600		101,400				Mc
21										
22			250	250		180				Mc.
23			2,800	17,330		13,000				M. Mc.
24									Turners Falls Power & Electric Co.	Mc.
25					675	450			Connecticut River Transportation Co.	M. Mc.
26			1,000	1,670		1,500				Mc.
27	Private	339	150	150		400	$0.18 – .144	$0.10 –$0.02	Monument Mills Hydro-Electric Plant.	Mc. M. C.
28	Do	4,000				3,140	.11 – .07	.05 – .018	Turners Falls Power & Electric Co.	Mc.M.O.C.
29	Do	100				75	.11 – .07	.05 – .018	Turners Falls Power Co	O. C.
30			1,000	2,330		1,750		.025– .01		C.
31	Private	2,085				1,200		.025– .01		Mc. O. C.
32	Do	40	125	100		180	.12			Mc. C.
33		1,700		2,000		(2,200)	.13 – .06	.10 – .02		Mc. M.
34	Private	125	350	325		410	.20 – .09	.10 – .019	Stockbridge Lighting Co	Mc. M. C.
35									do	Mc.
36										C.
37			3,530	8,200		6,570	.04	.04		Mc. C.
38		2,464				930	.04	.04		C.
39		7,436				5,500	.04	.04		C.
40			3,200	6,800		5,000				M. Mc.
41							.25 – .15		Beverly Gas & Electric Co	M. Mc.
42			(100)	130		100				M. Mc.
43			835	1,761		1,100	.15 – .12		Connecticut River Transportation Co.	M. Mc.
44									Marlboro Electric Co	Mc.
45									North Adams Gas Light Co	M. Mc.
46			150	300		265			Clinton Gas Light Co	M. Mc.
47			400	750		515			Leominster Electric Light & Power Co.	M. Mc.
48									Clinton Gas Light Co	M. Mc.
49			900	1,420		1,075				M. Mc.
50			(300)	(400)		365				M. Mc.
51									Northampton Electric Lighting Co.	M. Mc.
52			1,560	3,870		2,000				M. Mc.
53			600	1,745		1,225				M. Mc.
54									Central Massachusetts Electric Co.	M. Mc.
55									North Adams Gas Light Co	M. Mc.
56									City of Danvers	Mc.
57			1,200	2,030		1,400				Mc.
58		2,240	500	670		2,065				Mc.
59										
60			1,500	250		70				Mc.
61			3,400	13,330		11,500	.12 – .035	.05 – .016		M. Mc.
62			600	1,170						Mc.
63		800	5,370	10,990		8,125				Mc. M.
64										
65			1,000	1,200		800				M. Mc.
66		900	750	1,000		1,350				Mc. M.
67			3,280	14,670		11,000				Mc.
68			450	300		225				Mc.
69		900	10,280	25,670		18,075				Mc.
70	Private	9,600				6,000	.025– .007		Worcester Electric Light Co	M. Mc.
71	Do	9,600				6,000	.025– .007		Massachusetts Electric Light Co.; Blackstone Valley Gas & Electric Co.	C.
72	Do	9,200				6,000	.025– .007		Narragansett Electric Light Co.	C.
73	Do	21,000				17,000	.025– .007		Berkshire Street Ry	C.
74		75	125	85		120			do	Mc.
75		50	250	150		100				Mc.
76			500	1,820		1,255	.20 – .11	.10 – .03		M. Mc.
77							.15 – .125		Blackstone Valley Gas & Electric Co.	M. Mc.
78		1,200	814	2,630		2,900	.16	.08 – .025	East Hadley Falls Electric Light Co.	M. Mc. C.
79					240	170				Mc.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

MASSACHUSETTS—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
	Parker, C. D., & Co. (Inc.)—Continued.					
80	Union Light & Power Co.	GD	Franklin, Wrentham, Plainville, and Foxboro.	Franklin	Franklin	
81	Ware Electric Co.	GD	Ware and Hardwick	Ware	Ware	
82	Weymouth Light & Power Co.	GD	Norfolk County	East Weymouth		
83	Worcester Suburban Electric Co.	GD	Uxbridge, Auburn, and vicinity.	Uxbridge	Uxbridge	
84	Pittsfield Electric Co.	GD	Pittsfield and Dalton	Pittsfield	Pittsfield	
85	Plymouth Electric Light Co.	GD	Plymouth	Plymouth	Plymouth	
86	Quincy Electric Light & Power Co.	GD	Quincy	Quincy	Quincy	
87	Randolph & Holbrook Light & Power Association.	GD	Randolph and Holbrook	Randolph	Randolph	
88	Seekonk Electric Co.	D	Seekonk	Seekonk		
89	Shelburne Falls & Colerain Street Ry. Co.	GD	Shelburne Falls and Colerain	Shelburne Falls	Frankton	North River
90	Shirley Electric Light Co.	D	Shirley	Shirley		
91	Stockbridge Lighting Co.	D	Stockbridge	Stockbridge		
	Stone & Webster Mortgage Association	M				
92	Brockton & Plymouth Street Ry. Co.	GD		Plymouth	Plymouth	
93	Edison Electric Illuminating Co. of Brockton	GD	Brockton and vicinity	Brockton	Brockton	
94	Do.		East Bridgewater	East Bridgewater	East Bridgewater	
95	Do.		Stoughton	Stoughton	Stoughton	
96	Do.			Whitman	Whitman	
97	Electric Light & Power Co. of Abingdon and Rockland.	D	Abingdon, Rockland, Hanover.	North Abingdon	North Abingdon	
98	Lowell Electric Light Corporation	GD	Lowell and vicinity	Lowell	Lowell	
99	Sunderland Electric Light and Power Co.	D	Sunderland	Sunderland		
	Tenney, C. H., & Co.	M				
100	Fitchburg Gas & Electric Light Co.	GD	Ashby	Ashby		
101	Do.		Fitchburg	Fitchburg		
102	Do.		Townsend	Townsend		
103	Haverhill Electric Co.	GD	Haverhill and Groveland	Haverhill	Haverhill	
104	Malden Electric Co.	GD	Malden and vicinity	Malden	Malden	
105	Salem Electric Lighting Co.	GD	Salem and Peabody	Salem	Salem	
106	Suburban Gas & Electric Co.	GD	Revere and Wenthrop	Revere	Revere	
107	Turners Falls Power & Electric Co.	GTD	Franklin and Hampden Counties.	Turners Falls, No. 1	Montague	Connecticut River
108	Do.	GTD	do.	Turners Falls, No. 2	do.	do.
109	Tyngsboro Electric Light Co.	D	Tyngsboro and Dunstable	Tyngsboro		
110	United Electric Light Co.	GD	Springfield, West Springfield, and Longmeadow.	Springfield, No. 1	Springfield	
111	Do.	GD		Springfield, No. 2		Chicopee River
112	Do.	GD		Springfield, No. 3		do.
113	Webster & Southbridge Gas & Electric Co.	GD	Webster, Southbridge, and vicinity.	Webster	Webster	
114	Winchendon Electric Light & Power Co.	GD	Winchendon	Winchendon	Winchendon	Millers River
115	Worcester Electric Light Co.	GD	Worcester and Leicester	Leicester	Leicester	
116	Do.	GD		Worcester	Worcester	

B.—MUNICIPAL PLANTS.

117		D	Ashburnham	Ashburnham		
118		D	Cambridge	Belmont		
119		GD	Chicopee, Fairview, and vicinity.	Chicopee	Chicopee	
120		GD	Concord	Concord	Concord	
121		GD	Danvers and Middleton	Danvers	Danvers	
122		GD	Braintree and East Braintree.	East Braintree	East Braintree	
123		D	Groton	Groton		
124		D	Groveland	Groveland		
125		D	Hingham	Hingham		
126		GD	Holyoke	Holyoke	Holyoke	Connecticut River
127		GD	Hudson	Hudson	Hudson	
128		GD	Hull	Hull	Hull	
129		TD	Ipswich and Rowley	Ipswich		
130		D	Lunenburg	Lunenburg		
131		GD	Mansfield	Mansfield	Mansfield	
132		GD	Marblehead	Marblehead	Marblehead	
133		GD	Merrimac	Merrimac	Merrimac	
134		GD	Middleboro	Middleboro		
135		GD	North Attleboro, Adamsdale, Oldtown.	North Attleboro	North Attleboro	
136		D	Norwood	Norwood		

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

MASSACHUSETTS—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from	Source of information.
80			150	275		250			Blackstone Valley Gas & Electric Co.	M. Mc.
81			220	350		265	$0.17 -$0.08		Central Massachusetts Electric Co.	M. Mc.
82		400	450	1,000		750	.15 - .05		Ludlow Electric Light Co	Mc. M.
83			2,287	2,270		2,600			Connecticut River Transportation Co.	M. Mc.
84			1,750	3,670	445	2,710				M. Mc.
85			1,000	1,000		510				M. Mc.
86			1,000	1,800		2,070				M. Mc.
87	Private		250	570		470	.13 - .05	$0.13- $0.025	Weymouth Light & Power Co.	Mc.
88									Narragansett Electric Lighting Co.	Mc.
89	Private	250	200	150		250		.07		Mc. M. C.
90									Connecticut River Transportation Co.	Mc.
91							.20		Monument Mills Hydro-Electric Plant.	M. Mc.
92			600	1,200		1,125				Mc.
93			1,350	2,035		1,300				M. Mc.
94			3,800	10,670		4,000				M. Mc.
95			300	450		205				M. Mc.
96			250	250		180				M. Mc.
97			500	725		600			Edison Electric Illuminating Co. of Brockton.	M. Mc.
98			2,500	4,500		4,900				M. Mc.
99									Amherst Gas Co	Mc.
100		60	50	35	18	30				Mc.
101		500	2,250	7,265		5,425	.12	.05 - .01	Connecticut River Transportation Co.	Mc. M.
102		121	80	60		35				Mc.
103			2,575	7,250		4,950	.11	.043- .019		M. Mc.
104			1,910	4,475		3,400	.11			M. Mc.
105			1,750	8,035		4,500				M. Mc.
106			1,120	2,550		1,400	.11			M. Mc.
107	Private	7,800				5,500			Connecticut River Transportation Co., Greenfield Electric Co., Light & Power Co.	Mc. O. C.
108	Do	29,100				22,500				C.
109										Mc.
110			9,600	15,000		11,200	.09 - .03	.05 - .01	Turners Falls Power & Electric Co.	Mc.
111		3,600				2,200	.09 - .03	.05 - .01		Mc. M.O.C.
112		900				800	.09 - .03	.05 - .01		Mc. M.O.C.
113			675	1,470		1,080				M. Mc.
114	Private	350				250	.12 - .05	.10 - .021	Connecticut River Transportation Co.	Mc. C.
115			6,000	21,330		18,000				M. Mc.
116										Mc.
	Total, A	119,287	137,224	385,439	1,507	365,858				

B—MUNICIPAL PLANTS.

117									Gardner Electric Light Co...c	Mc.
118									Cambridge Electric Light Co..	Mc.
119			250	670		500			Turners Falls Power & Electric Co.	Mc.
120			270	740		1,100				Mc.
121			550	1,285		1,005				Mc.
122			400	500		625				Mc.
123									Connecticut River Transportation Co.	Mc.
124									Haverhill Electric Co	Mc.
125									Weymouth Light & Power Co.	Mc.
126	Private	1,120	5,000	14,666		6,700	$0.06	$0.05-$0.013		Mc. C.
127			600	920		600				Mc.
128			515	1,000		864			Weymouth Light & Power Co.	Mc.
129										Mc.
130										Mc.
131					680	500				Mc.
132			600	670		600				Mc.
133			317	272		272				Mc.
134		150	25		300	350				Mc.
135			750	1,000		700			Union Light & Power Co	Mc.
136									Edison Electrical Illuminating Co. of Boston.	Mc.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

MASSACHUSETTS—Continued.

B.—MUNICIPAL PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
137		GD	Peabody and Lynnfield	Peabody	Peabody	
138		D	Princeton	Princeton		
139		GD	Reading and vicinity	Reading	Reading	
140		D	Rowley	Rowley		
141		D	Shrewsbury	Shrewsbury		
142		D	South Hadley Falls	South Hadley Falls		
143		D	Sterling	Sterling		
144		GD	Taunton and Raynham	Taunton	Taunton	
145		D	Templeton and Baldwinsville.	Templeton	Templeton	
146		D	Wakefield	Wakefield		
147		D	Wellesley	Wellesley		
148		D	West Boyleston	West Boyleston		
149		GD	Westfield	Westfield		

C.—ALL OTHER PLANTS.

150	American Woolen Co			Arden Mills	Fitchburg	Nashua River
151	Do			Assabet Mills	Maynard	Assabet River
152	Do			Bay State Mills	Lowell	Concord River
153	Do			Beaver Brook Mills	do	Beaver Brook
154	Do			Beaver Brook (shoddy mills).	do	
155	Do			Beoli Mills	Fitchburg	
156	Do			Chase Mills	Webster	French River
157	Do			Hecla Mills	Uxbridge	Blackstone River
158	Do			Prospect Mills	Lawrence	Merrimac River
159	Do			Puritan Mills	Plymouth	
160	Do			Ray Mills	Franklin	
161	Do			Rochdale Mills	Rochdale	French River
162	Do			Royalston Mills	South Royalston	Millers River
163	Do			Saranac Mills	Blackstone	Blackstone River
164	Do			Washington Mills	Lawrence	Merrimac River
165	Do			Wood Worsted Mills	South Lawrence	
166	Ballou, C. M		Manufacturing	Shirley	Shirley	Catacoonameog River
	Bliss Fabyan & Co	H				
167	Otis Co	G	do	Ware	Ware	Ware River
168	Thorndike Co	G	do	Thorndike	Thorndike	do
169	Do	G	do	Warren	West Warren	Quaboog River
170	Boston Elevated Ry. Co	G	Electric railways	Central	Boston	
171	Do		do	Charleston	do	
172	Do		do	Dorchester	do	
173	Do		do	Harvard	do	
174	Do		do	Lincoln	do	
175	Do		do	South Boston	do	
	Boston & Worcester Electric Co	H				
176	Boston & Worcester Street Ry. Co	G	Electric railways	Framingham	Framingham	
177	Champion International Co			Lawrence	Lawrence	Merrimac River
178	Essex Co			do	do	do
179	Everett Mill			do	do	do
180	Farwell Bleachery			do	do	do
181	Fitchburg & Leominster Street Ry. Co	G	Electric railways	South Fitchburg	South Fitchburg	
182	Hamblet, Geo. W			Lawrence	Lawrence	
183	Hamilton Woolen Co			Amesbury		Pawaw River
184	Do			Southbridge		Quinebaug River
185	Hitchcock, E. D		Sawmill	Dell		Branch Brook
186	Holyoke Street Ry. Co	G		Amherst		
187	Do			Holyoke		
188	International Paper Co	G	Manufacturing	Montague	Turners Falls	Connecticut River
189	Kunhardt, Geo. W			Lawrence	Lawrence	Merrimac River
190	Lawrence Duck Co	G	Manufacturing	do	do	do
191	Lewis, E. Frank		Woolen mills	do	do	do
	Massachusetts Consolidated Rys. Co	H				
192	Concord, Maynard & Hudson Street Ry. Co	G	Electric railways	Maynard	Maynard	
193	Connecticut Valley Street Ry. Co	G	do	Greenfield		Connecticut and Deerfield Rivers.
194	Do	G	do	Hadley		do
	Massachusetts Electric Cos	H				
195	Bay State Street Ry. Co	G	Electric railway	Byfield	Byfield	
196	Do	G	do	Chelsea		
197	Do	G	do	Essex		
198	Do	G	do	Gloucester		
199	Do	G	do	Haverhill		
200	Do	G	do	Hyde Park		
201	Do	G	do	Lakeville		
202	Do	G	do	Lawrence		
203	Do	G	do	Lowell		
204	Do	G	do	Lynn		
205	Do	G	do	Quincy		
206	Do	G	do	Salem		
207	Do	G	do	Woburn		

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

MASSACHUSETTS—Continued.

B.—MUNICIPAL PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from —	Source of information.
137			660	1,200		925				Mc.
138									Gardner Electric Light Co.	Mc.
139			375	1,300		1,125				Mc.
140									City of Ipswich	Mc.
141									Marlboro Electric Co.	Mc.
142										Mc.
143									Connecticut River Transportation Co.	Mc.
144			1,950	5,350		3,800				Mc.
145									Gardner Electric Light Co.	Mc.
146									Edison Electrical Illuminating Co. of Boston.	Mc.
147									do	Mc.
148									Connecticut River Transportation Co.	Mc.
149			1,008	2,000		1,500				Mc.
	Total, B	1,270	13,270	31,573	980	21,166				

C.—ALL OTHER PLANTS.

150		142								M. O.
151		329								M. O.
152		220								M. O.
153		290								M. O.
154										M.
155										M.
156		186								M. O.
157		180								M. O.
158		3,203								M. O.
159										M.
160										M.
161		174								M. O.
162		414								M. O.
163		396								M. O.
164										M. O.
165										M.
166	Private	80								C.
167	Do	2,000	2,250	3,300		2,882				M. O. C.
168	Do	1,530	1,050	1,100		500				M. O. C.
169		1,664	1,600	1,450		130			Central Massachusetts Electrical Co.	M. O. C.
170			11,868	17,800		12,900				M. Mc.
171			5,900	10,400		7,000				Mc.
172			3,808	7,500		5,500				Mc.
173			5,400	9,600		6,300				Mc.
174			10,160	21,000		13,500				Mc.
175			9,600	60,000		45,000				Mc.
176			2,850	2,670		3,500				Mc.
177										O.
178		50								C.
179										O.
180	Private	350	625	275					Lawrence Gas & Electric Co.	C.
181			750	750		500				Mc.
182										O.
183		2,980								Mc. O.
184										
185	Private	78	37	22						C.
186			(4,000)	5,000		2,950				Mc.
187										
188	Private	4,000	1,560	550		50			Turners Falls Power & Electric Co.	M.
189										O.
190	Private	900	500	250	850	600				C.
191	Do	500	900	500						C.
192			600	700		500				M. Mc.
193	Private	400	600	700		850			Greenfield Electric Light & Power Co.	Mc. M. C.
194	Do	300				200			do	Mc. M. C.
195			345	600		500				M. Mc.
196			3,350	5,300		3,950				Mc.
197			450	600		440				Mc.
198			1,270	2,300		1,500				Mc.
199			1,145	2,800		2,200				Mc.
200			1,500	2,900		1,875				Mc.
201			750	900		750				Mc.
202			2,455	5,100		3,365				Mc.
203			3,200	6,325		4,300				Mc.
204			3,300	5,450		3,950				Mc.
205			7,500	15,000		10,000				Mc.
206			2,600	4,000		2,350				Mc.
207			2,400	6,300		3,750				Mc.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

MASSACHUSETTS—Continued.

C.—ALL OTHER PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
208	Merrimac Paper Co			Lawrence	Lawrence	Merrimac River
209	Monroe Felt & Paper Co		Manufacturing	do	do	do
210	New Bedford & Onset Street Ry. Co	G	Electric railways	Wareham	Wareham	
	New England Investment & Securities Co	H				
211	Milford, Attleboro & Woonsocket Street Ry. Co.	G	do	Unionville	Unionville	
	New York, New Haven & Hartford R. R. Co	H				
212	Berkshire Street Ry. Co	G	do	Pittsfield	Pittsfield	
213	Do	G	do	Zylonite	Zylonite	
214	Norfolk & Bristol Street Ry. Co	G	do	South Walpole	South Walpole	
215	Northampton Street Ry. Co	G	do	Northampton	Northampton	
216	Norton & Taunton Street Ry. Co	G	do	Barrowsville	Barrowsville	
217	Pemberton Co	G	Manufacturing	Lawrence	Lawrence	Merrimac River
218	Plymouth Mills			do	do	do
219	Proprietors of locks and canals			Lowell		do
	Southeastern Electric Cos	H				
220	Taunton & Pawtucket Street Ry. Co	G	Electric railways	Attleboro	Attleboro	
	Stone & Webster Mortgage Association	M				
221	Blue Hill Street Ry. Co	G	do	Canton	Canton	
222	Union Street Ry. Co	G	do	New Bedford	New Bedford	
223	United States Worsted Co			Lawrence	Lawrence	Merrimac River
224	Ware & Brookfield Street Ry. Co	G	Electric railways	Ware	Ware	
225	Warren, Brookfield & Spencer Street Ry. Co	G	do	Brookfield		
226	Wright Manufacturing Co			Lawrence	Lawrence	Merrimac River

MICHIGAN.

A.—PUBLIC UTILITY PLANTS.

1	Alma Grain & Lumber Co	GD	Alma	Alma	Alma	Pine River
	American Light & Traction Co	H				
2	Muskegon Traction & Lighting Co	GD	Muskegon	Muskegon	Muskegon	
	Alpena Power Co. (Ltd.)	H				
3	Alpena Electric Light Co	GD	Alpena	Alpena	Alpena	Thunder Bay River
4	Anderson Bros	GD	Hartford	Hartford	S. 9 and 10, T. 3 S., R. 16 W.	Paw Paw River
5	Antrim Light & Power Co	GD	Mancelona	Mancelona		
6	Athens Mill & Power Co	GD	Athens	Athens		
7	Bale, J. J., Light Plant	GD	Lakeview	Lakeview	Lakeview	
8	Bay View Camp Ground Association	D	Camp Ground	Bay View		
9	Beaverton Light & Power Co	GD	Beaverton	Beaverton		
10	Beckwith, P. D., Estate (Inc.)	GD	Dowagiac	Round Oak	S. 10, 14, and 15, T. 6 S., R. 15 W.	Dowagiac Creek
11	Benton Harbor-St. Joe Railway & Light Co	D	Berrien County			
12	Benzie County Power Co	GD	Benzie and Manistee Counties.	Betzie River Dam		Betzie River
13	Do	GD		Frankport	Frankport	
14	Big Rapids Electric Co	GD	Big Rapids	Big Rapids	Big Rapids	Muskegon River
15	Boardman Light Co	GD	South Boardman	South Boardman		
16	Boardman River Electric Light & Power Co	GD	Traverse City	Traverse City	Traverse City	Boardman River
	Boyne River Power Co	H				
17	Boyne City Electric Co	GD	Boyne City	Boyne City	Boyne City	Boyne River
18	Do	GD	do	do	do	
19	Brighton Electric Light & Power Co	GD	Brighton	Brighton	Brighton	
20	Caro Light & Power Co	GD	Caro	Caro		Caro River
21	Centerville Water & Electric Co	GD	Centerville	Centerville		
22	Central Lake Electric Light Co	GD	Central Lake	Central Lake	Central Lake	
23	Cheboygan Electric Light & Power Co	GD	Cheboygan and Emmet Counties.	Cheboygan		Black River
24	Do	GD	do	Pellston		Maple River
25	Citizens Electric Co., The	GD	Battle Creek	Battle Creek		
26	Citizens Light & Power Co	GD	Adrian	Adrian		
27	Citizens Light Co	GD	Belding and Smyrna	Belding		Flat River
28	Clearwater Electric Light Plant	GD	Mosherville	Mosherville	Mosherville	Kalamazoo River
29	Cleveland Cliffs Iron Co	GD	Marquette County	Carp River		Carp River
30	Do			Mais		
31	Do			Princeton		

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

MASSACHUSETTS—Continued.

C.—ALL OTHER PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
208										
209	Private	500	200	200						C.
210			1,280	950		725				M. Mc.
211			750	750		575				M. Mc.
212			6,030	15,225		12,700				M. Mc.
213										Mc.
214			500	1,100		825				M. Mc.
215			800	1,200		840				M. Mc.
216			(500)	800		(480)				M. Mc.
217	Private	1,000	500	150		150				C.
218										O.
219		11,262								O.
220			1,000	840		400				M. Mc.
221			(600)	(800)		487				M. Mc.
222			3,100	4,550		3,000				M. Mc.
223										O.
224			500	500		405				M. Mc.
225			324	750		587				M. Mc.
226										O.
	Totals, C	33,128	110,527	228,957	850	162,936				
	Grand total	153,685	261,021	645,969	3,337	549,960				

MICHIGAN.

A.—PUBLIC UTILITY PLANTS.

1		250	200	350		235½	$0.10			Mc. C.
2			1,000	1,570		1,150				Mc.
3	Private	1,355				1,080	$0.11 – .06	$0.025–$0.005		Mc. O. C.
4	Do	175			50	100	.08 – .05	.05 – .035		Mc. C.
5		300				270				Mc.
6		105			50	90				Mc.
7			100	75		60	.07			Mc. C.
8									City of Petoskey	Mc.
9		300	150	100		215				Mc.
10	Private	110	1,200	1,200		1,000	.075	.075		Mc. C.
11							.11 – .04	.05 – .02	Indiana & Michigan Electric Co.	Mc. M. C.
12	Private	500				375	.10 – .04	12+.02 – .015		C.
13			300	225		500				Mc.
14	Private	320				315	.08 – .035	.03 – .01		Mc. C.
15		88				65				Mc.
16	Private	1,600				750	.08 – .04	.03		Mc. M. C.
17	Do	500				300	.10 – .04	.05 – .012		Mc. M. C.
18	Do		100	100		75	.10 – .04	.05 – .015		C.
19			80	80		50				Mc.
20	Private	300	(300)	300		310	.12 – .05			Mc. C.
21		180				135			City of Sturgis	Mc.
22	Private		150	125		80	.10			C.
23		1,320				1,000				Mc. M.
24	Private	300				37½	.10 – .06			Mc. M. C.
25		350	700	1,650		1,500	.18			Mc. M.
26		750	1,500	1,330		1,900				Mc. M.
27	Private	350				200	.08	.05 – .025		Mc. C.
28	Do	70				25				C.
29		8,000				5,600				O.
30						1,300				O.
31						1,500				O.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

MICHIGAN—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
32	Columbiaville Woolen Mill	D	Columbiaville	Columbiaville	Columbiaville	
	Commonwealth Power, Railway & Light Co	H				
33	Au Sable Electric Co	GTD	Southern Michigan	Albion		
34	Do	GTD	do	Allegan		
35	Do	GTD	do	Battle Creek		
36	Do	GTD	do	do		
37	Do	GTD	do	do		
38	Do	GTD	do	Bay City		
39	Do	GTD	do	Ceresco		
40	Do	GTD	do	Cooke		Au Sable River
41	Do	GTD	do	Croton		
42	Do	GTD	do	Five Channels		Au Sable River
43	Do	GTD	do	Flint		
44	Do	GTD	do	Grand Rapids		
45	Do	GTD	do	do		
46	Do	GTD	do	Jackson		
47	Do	GTD	do	Kalamazoo		
48	Do	GTD	do	Loud		
49	Do	GTD	do	Lowell, No. 1		
50	Do	GTD	do	Lowell, No. 2		
51	Do	GTD	do	Otsego		
52	Do	GTD	do	Plainwell		
53	Do	GTD	do	Rogers		
54	Do	GTD	do	Saginaw		
55	Do	GTD	do	Shiawassee town		
56	Do	GTD	do	Stronach		
57	Do	GTD	do	Trowbridge		
58	Do	GTD	do	Webber		
59	Bay City Power Co	D	Bay City and Essexville	Bay City		
60	Cadillac Water & Light Co	GD	Cadillac	Cadillac	Cadillac	
61	Commonwealth Power Co	D	Jackson	Jackson		
62	Flint Electric Co	D	Flint	Flint		
63	Grand Rapids Edison Co	D	Kent County	Grand Rapids		
64	Grand Rapids-Muskegon Power Co	GTD	Ottawa and Kent Counties	Big Rapids		
65	(Lessor, Grand Rapids, Grand Haven & Muskegon Ry Co.).	L		Fruitport	Fruitport	
66	Grand Rapids, Holland & Chicago Ry. Co			Grand Rapids		
67	Grand Rapids Ry. Co			do		
68	Manistee Power & Light Co	GD	Manistee	Manistee		
69	Pontiac Power Co	GD		Pontiac		
70	Saginaw Power Co	D		Saginaw		
71	Consolidated Light & Power Co	GD	Isabella, Claire, and Midland Counties.	Mount Pleasant	Mount Pleasant	Chippewa River
	Copper Range Co	H				
72	Baltic Mining Co	GD	Houghton County	Redridge	S. 20, T. 55 N., R. 35 W.	
73	Dundee Power Co	GD	Dundee	Dundee		
74	East Jordan Electric Light & Power Co	GD	East Jordan	East Jordan	East Jordan	
75	Edison Sault Electric Co	GD	Sault Ste. Marie	Sault Ste. Marie	Sault Ste. Marie	St. Marys River
76	Eesley Light & Power Co	GD	Plainwell	Plainwell		Kalamazoo River
77	Electric Light & Power Co	GD	Munising	Munising	Munising	
78	Elk Rapids Electric Co	GD	Elk Rapids	Elk Rapids		
79	Escanaba Traction Co	GD	Delta County	Escanaba	Groos	Escanaba River
80	Do			Wells	Wells	do
81	(Lessor, City of Escanaba)	L		Escanaba	Escanaba	
82	Fennville Milling Co	GD	Fennville	Fennville	Fennville	
83	Fowlerville Lighting Co	GD	Fowlerville	Fowlerville	Fowlerville	
84	Frugale Power Co	GD	Montague	Whitehall	Whitehall	
85	Gibbs, J. H., & Sons	GD	Edmore	Edmore	Edmore	
86	Gibbs, Mrs. J. L	GD	Mayfield and Kingsley	Mayfield		Mayfield Creek
87	Gladwin Light & Power Co	GD	Gladwin	Gladwin		
88	Grand Marais Light & Water Plant	GD	Grand Marais	Grand Marais	Grand Marais	
89	Grayling Electric Co	GD	Grayling	Grayling	Grayling	Au Sable River
90	Greene, George E., Light Plant	GD	Brooklyn	Brooklyn	Brooklyn	
91	Green, Roswell	GD	North Branch	North Branch	North Branch	
92	Hall, C. F., Light Plant	GD	Standish	Standish	Standish	
93	Harbor Electric Co. The	GD	Harbor Beach	Harbor Beach	Harbor Beach	
94	Hart Milling & Power Co	GD	Flushing	Flushing		Flint River
95	Hillman Electric Light & Water Co	GD	Hillman	Hillman		
96	Homer Electric Light & Power Co	GD	Homer	Homer	Albion	Kalamazoo River
97	Howard City Electric Light & Power Co	GD	Howard City	Howard City	Howard City	
98	Hubbardston Electric Light & Power Co	GD	Hubbardston	Hubbardston		
99	Hudson Electric Light Co	GD	Hudson	Hudson	Hudson	
100	Hulm, D. G., Co	GD	Saranac	Saranac		
101	Hydraulic Power & Light Co	GD	Charlevoix	Bellaire	Bellaire	Intermediate River
102	Imlay City Electric Light Co	GD	Imlay City	Imlay City	Imlay City	
103	Indiana & Michigan Electric Co	GD	Berrien Springs	Berrien Springs		St. Joseph River
104	Do	GD	Buchanan	Buchanan		do
105	Ionia Water Power Electric Co	GD	Ionia	Ionia		
106	Iron Mountain Electric Light & Power Co	GD	Iron Mountain	Iron Mountain	Iron Mountain	
107	Iron Range Light & Power Co	D	Iron County	Iron River		
108	Ironwood & Bessemer Railway & Llght Co	GD	Gogebic County and points in Wisconsin.	Ironwood		
109	Kalkaska Light & Power Co	GD	Kalkaska	Kalkaska		
110	Lake City Electric Light & Water Co	GD	Lake City	Lake City	Lake City	
111	Lapeer Gas & Electric Co	GD	Lapeer	Lapeer	Lapeer	
112	Leland Light & Power Co	GD	Leelanau County	Leland		
	McCaskey, W. T., & Co	M				
113	Continental Utilities Co	GD	Allegan County	Saugatuck	Saugatuck	
114	McIntyre, Frank	GD	Hersey	Hersey	Hersey	Hersey River
115	Macatawa Resort Co	GD	Macatawa	Macatawa	Macatawa	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

MICHIGAN—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt, hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
32										Mc
33										M. Mc.
34										M. Mc.
35										M. Mc.
36										M. Mc.
37										Mc.
38										M. Mc.
39										M. Mc.
40										M. Mc.
41										M. Mc.
42										Mc. M. O.
43										Mc. M.
44										Mc. M.
45		64,213	29,481	62,180		84,100				Mc. M.
46										Mc. M.
47										Mc. M.
48										Mc. M.
49										Mc. M.
50										Mc. M.
51										Mc. M.
52										Mc. M.
53										Mc. M.
54										Mc. M.
55										Mc. M.
56										Mc. M.
57										Mc. M.
58										Mc. M.
59									Au Sable Electric Co.	Mc.
60			700	550		450				M. Mc.
61										M. Mc.
62									Au Sable Electric Co.	Mc.
63									Grand Rapids-Muskegon Power Co.	M. Mc.
64		6,000				(3,600)				M.
65			1,000	1,250		1,250			Au Sable Electric Co.	Mc.
66										M.
67										M.
68		600	320	980		500				Mc. M.
69		1,400	1,650			1,300				M. Mc.
70										Mc.
71		400	700	600		700			Gladwin Light & Power Co.	Mc. C.
72			1,650	2,000		1,500				C.
73		210	100	120		200				Mc.
74			300	375		405				Mc.
75	Public	3,000			1,800	1,800	$0.10 –$0.02	$0.03 –$0.0075		Mc. M. C.
76	Private	420	400	450		400	.06			Mc. C.
77			500	350		225				Mc.
78		350				210				Mc.
79	Private	3,200	200	300		2,150	.08 – .01	.08 – .007		Mc. M. C.
80	Do.	1,320				900	.08 – .01	.08 – .007		Mc. M. C.
81			700	400		400	.08 – .01	.08 – .007		C
82			100	85		40				Mc.
83			220	220		70				Mc.
84	Private				125	180	.10 – .06	.06 – .04		Mc. C.
85	Do.		180	160		85	.11 – .08	.08 – .04		Mc. C.
86	Do.	75				45	.125			Mc. C.
87		400				250				Mc.
88			205	200		179				Mc.
89	Private	136				90	.12 – .08			Mc. C.
90			100	110		75				Mc.
91	Private		80	80		50	.10 – .08			Mc. C.
92			150	150		100				Mc.
93	Private		(650)	870		650	.10	6.00	The Huron Milling Co.	Mc. C.
94	Do.	450	150	135		225	.07 – .06	.05 – .015		Mc. C.
95		150				120				Mc.
96	Private	100				100	.18 – .06	.18 – .06		Mc.
97	Do.		150	225		115	.12 – .07			Mc. C.
98		183				45				Mc.
99	Private		325	525		420	.10 – .06	.055 – .025		Mc. C.
100		60	100	85		35				Mc.
101	Private	400	700	850		375	.04 – .03	.025 – .015		Mc. C.
102			250	175		150				Mc.
103		9,200				1,500				Mc. M. C.
104		200								Mc. M. O.
105		400				(240)				Mc.
106			600	350		250			Peninsular Power Co.	M. Mc.
107										M. Mc. C.
108		2,600	900	1,300		1,000				Mc. M.
109		300				200				Mc.
110			110	80		60				Mc. C.
111			300	500		357				Mc. M.
112			200	(200)		120				Mc.
113					170	105	.12 – .07			Mc. C.
114	Private	100				42	.10			C.
115	Do.		80	75		60	.15			Mc. C.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

MICHIGAN—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
116	Manistique Light & Power Co	GD	Manistique	Manistique		
117	Marine City Roller Mills Co	GD	Marine City	Marine City	Marine City	
118	Menominee & Marinette Light & Traction Co	GTD	Menominee and Marinette, Wis.	Rapids		Menominee River
119	Do	GD		Menominee		
120	Michigan Power Co	GD	Lansing and East Lansing	Lansing	Lansing	
121	Do	GD	do	do		Grand River
	Middle West Utilities Co	H				
122	Constantine Hydraulic Co	GD	St. Joseph and Cass Counties	Constantine	Constantine	St. Joseph River
123	Marquette County Gas & Electric Co	GTD	Marquette County	Negaunee	Negaunee	
124	Milling & Power Co	GD	Cassopolis	Cassopolis	Cassopolis	
125	Three Rivers Light & Power Co	GTD	Three Rivers	Three Rivers	Three Rivers	Portage River
126	Milford Electric Co	GD	Milford	Milford	Milford	Huron River
127	Monaghan & Taylar Light Plant	D	Rose City	Rose City	Rose City	
128	Morenci-Fayette Light & Power Co	GD	Morenci and Fayette	Morenci	Morenci	
129	Nadeau Bros	GD	Nadeau	Nadeau	Nadeau	
	National Gas, Electric Light & Power Co	H				
130	Port Huron Gas & Electric Co	GD	Port Huron	Port Huron	Port Huron	
131	Newaygo Portland Cement Co	GD	Newaygo	Newaygo		
	North American Co., The	H				
132	Detroit Edison Co., The	GTD	Southeastern Michigan	Argo	Ann Arbor	Huron River
133	Do			Barton	S. 17, T. 2 S., R. 6 E	do
134	Do			Conners Creek, No. 1	Detroit	
135	Do			Delray, No. 1	do	
136	Do			Delray, No. 2	do	
137	Do			Geddes	Geddes	
138	Do			do	S. 36, T. 2 S., R. 6 E	Huron River
139	Do			Mount Clemens	Mount Clemens	
140	Do			Superior	S. 31, T. 3 S., R. 7 E	Huron River
141	Do			West Willis Avenue	Detroit	
142	(Lessor, City of Northville)	L	Northville	Northville	Northville	
143	Edison Illuminating Co. of Detroit	D	Detroit	Detroit		
144	Oak Park Power Co	GD	Flint	Flint	Flint	
145	Ogemaw Power Co	GD	West Branch	West Branch		
146	Omer Mill & Electric Co	D	Omer	Omer	Omer	
147	Onaway Electric Light & Power Co	GD	Onaway and Tower	Onaway		Black River
148	O'Rourke, J. H., Light Plant	GD	Clio	Clio	Clio	
149	Osceola Light & Power Co	GD	Reed City	Reed City	Reed City	Hersey River
150	Peninsular Power Co	GD	Iron Mountain and Iron River.	Iron Mountain		Menominee River
151	Do	GD	do	Iron River	Iron River	
152	Peters, R. G., Salt & Lumber Co	GD	Eastlake	Eastlake	Eastlake	
153	Pinconning Light & Power Co	GD	Pinconning	Pinconning	Pinconning	
154	Postum Cereal Co			Battle Creek		
155	Preston & Sowton	GD	Wolverine	Wolverine	Wolverine	Sturgeon River
156	Rockafellow Grain Co	GD	Carson City	Carson City	Carson City	
157	Rogue River Electric Light & Power Co	GD	Rockford	Rockford		Rogue River
158	Sanford, O. A., Light Plant	GD	Crystal	Crystal	Crystal	
159	Schlegel Light & Power Co	GD	Lapeer	Lapeer		
160	Schroeder, C. P., & Co	GD	Deerfield and Petersburg	Deerfield		
161	Sebewaing Electric Co			Sebewaing		
162	Sparrow-Krall Lumber Co	GD	Kenton	Kenton	Kenton	
163	Spencer Electric Light & Power Co	GD	Belding and Smyrna	Smyrna	Smyrna	Flat River
164	Stearns Lighting & Power Co	GD	Mason and Oceana Counties	Ludington	Ludington	
165	Stone & Stone Electric Light Co	GD	Marion	Marion		North Branch Muskegon River
	Stone & Webster	M				
166	Houghton County Electric Light Co	GD	Houghton, Keweenaw and Oakland Counties.	Houghton	Houghton	
617	Sturgis & Sons Light Plant	GD	Fowler	Fowler	Fowler	
168	Tecumseh Electric Co., The	GD	Lenawee County	Tecumseh		Raisin River
169	Tower, R. J., Electric Co	GD	Greenville	Greenville		Flat River
170	United Electric Co	GD	Burr Oak	Burr Oak		
171	Do	GD	Mendon	Mendon		
172	Do	GD	Parkville	Parkville		
173	Utica Electric & Water Co	GD	Utica	Utica		
	Union Carbide Co	H				
174	Michigan Northern Power Co	GD	Sault Ste. Marie	Sault Ste. Marie	Sault Ste. Marie	St. Marys River
175	Vanderbilt Electric Light & Power Co	GD	Vanderbilt	Vanderbilt	Vanderbilt	
176	Wayland Light & Power Co	GD	Wayland	Wayland	Wayland	
177	Western Utilities Co			Grand Rapids		
178	Whipple, O. B., Light Plant	GD	Millington	Millington	Millington	
	White, J. G., & Co. (Inc.)	M				
179	Thornapple Gas & Electric Co	GD	Barren and Kent Counties	Hastings	Hastings	
180	Do	GD		La Barge	Caledonia	Thornapple River
181	Williamston Illuminating Co	GD	Williamston	Williamston		
182	Worcester Lumber Co. (Ltd.)	GD	Chassell	Chassell	Chassell	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

MICHIGAN—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
116		700				760				Mc.
117			250	200		250				Mc.
118	Private	5,700				3,700	$0.099–$0.038	$0.0315–$0.0075		Mc.M.O.C.
119			(1,000)	1,100		(600)				Mc. O.
120			3,200	4,670		3,500				Mc. M.
121		2,000				1,000				Mc. M.
122	Private	2,046				1,200	.10 – .05	.06 – .035		Mc. C.
123	Do		1,000	1,170		1,060	.10 – .07	.06 – .015		Mc. M. C.
124	Do		200	150		125	.11 – .05	.07 – .035	Constantine Hydraulic Co	Mc. C.
125		240				200		.03		Mc. C.
126	Private	300				250	.12 – .04	.12 – .02		Mc. C.
127										Mc.
128			275	260		220				Mc.
129	Private		250	120		25	.40*– .25*			Mc. C.
130	Do		2,000	3,500		4,300	.10 – .03	.15 – .02		Mc. C.
131		2,000				1,395				Mc. M.
132	Private	1,150				1,231				C.
133	Do	2,215				1,500				C.
134	Do		9,460	53,330		40,000				M. Mc. C.
135	Do		12,000	42,670		32,000				M. Mc. C.
136	Do		21,285	76,000		57,000				M. Mc. C.
137	Do		1,200	2,000		1,500				M. Mc. C.
138	Do	600				400				C.
139	Do		1,050	667		500				M. Mc. C.
140	Do	1,130				700				C.
141	Do		2,455	1,600		1,200				M. Mc. C.
142	Do	38	200	305		250				C.
143										
144			3,600	4,000		2,500				Mc.
145		500				175				Mc.
146										Mc.
147	Private	262				150	.12	.02		Mc. C
148			200	130		68				Mc.
149	Private	183				250	.10– .04	.02 – .01		Mc. C.
150		5,250				3,750				Mc. M.
151			1,450	833		625				M. Mc.
152			2,000	1,500	50	125				Mc.
153	Private		200	140		75				Mc. C.
154										M.
155	Private	117				60	.11– .06	.03		Mc.
156			200		100	90	.10			Mc. C.
157	Private	225				120	.09– .07	.05 – .01		Mc.
158			125	60		15	.10			Mc. C.
159		100	150	150		200				Mc.
160		100	80	80	80	125				Mc.
161										P.
162		100	(100)	100		35				Mc.
163		370				300	.08	.053– .023		Mc.
164	Private		(1,660)	2,400		1,665	.09– .05	.04 – .02	Buys steam	Mc. C.
165	Do	85			35	50	.10			Mc. C.
166	Private		1,800	4,250		2,800	.12	.07 – .01		M. Mc. C.
167			100	80	28	40				Mc.
168	Private	338	400	600		250	.10– .02	.10 – .02		Mc. C.
169	Do	400	250	250		350	.08– .056	.02 – .018		Mc. C.
170										Mc.
171		330	220			225				Mc.
172										Mc.
173		270				1,500				Mc.
174	Private	30,800				20,750				Mc.M.O.C.
175			150	58		(35)	.10			Mc.
176	Private		80	80		50	.10			Mc.
177										M.
178					60	45				Mc.
179			315	300		660	.12– .03	.04 – .01		Mc. C.
180	Private	950					.12– .03	.04 – .01		Mc. C.
181		100	150	230		240				Mc.
182			(70)	80		70				Mc.
	Total, A	186,289	117,966	287,788	748	325,960				

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

MICHIGAN—Continued.

B.—MUNICIPAL PLANTS.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
183		GD	Addison	Addison		
184		GD	Algonac	Algonac	Algonac	
185		D	Allegan	Allegan		
186		GD	Alpena	Alpena	Alpena	
187		GD	Bad Axe	Bad Axe	Bad Axe	
188		GD	Bangor	Bangor	Bangor	
189		GD	Baraga	Baraga	Baraga	
190		GD	Bay City	Bay City	Bay City	
191		GD	Bellaire	Bellaire	Bellaire	Cedar River
192		GD	Blissfield	Blissfield	Blissfield	
193		GD	Bronson	Bronson	Bronson	
194		GD	Brown City	Brown City	Brown City	
195		D	Capac	Capac		
196		GD	Cass City	Cass City	Cass City	
197		GD	Charlevoix	Charlevoix	Charlevoix	
198		GD	Chelsea	Chelsea	Chelsea	
199		GD	Chesaning	Chesaning	Chesaning	
200		GD	Clinton	Clinton	Clinton	
201		GD	Coldwater	Coldwater	S. 21, T. 6 S., R. 6 W.	
202		GD	Croswell	Croswell	Croswell	
203		GD	Crystal Falls	Crystal Falls		Paint River
204		GD	Davison	Davison	Davison	
205		GD	Decatur	Decatur	Decatur	
205		GD	Deckerville	Deckerville	Deckerville	
207		GD	Detroit	Detroit	Detroit	
208		GD	Dexter	Dexter	Dexter	
209		GD	Dowagiac	Dowagiac	Dowagiac	
210		GD	Durand	Durand	Durand	
211		GD	East Tawas and Tawas City	East Tawas	East Tawas	
212		GD	Eaton Rapids	Eaton Rapids	Eaton Rapids	
213		D	Escanaba	Escanaba	Escanaba	
214		GD	Evart	Evart	Evart	
215		GD	Gaylord	Gaylord	Gaylord	
216		D	Gladstone	Gladstone	Wells	
217		GD	Grand Haven	Grand Haven	Grand Haven	
218		GD	Grand Rapids	Grand Rapids	Grand Rapids	
219		D	Grass Lake	Grass Lake		
220		GD	Harbor Springs	Harbor Springs	Harbor Springs	
221		GD	Harrisville	Harrisville	Harrisville	
222		GD	Hillsdale	Hillsdale	Hillsdale	
223		GD	Holland	Holland	Holland	
224		GD	Howell	Howell	Howell	
225		GD	Ithaca	Ithaca	Ithaca	
226		GD	Jonesville	Jonesville	Jonesville	
227		GD	Kalamazoo	Kalamazoo	Kalamazoo	
228		GD	L'Anse	L'Anse	L'Anse	Fall River
229		GD	Lansing	Lansing	Lansing	
230		GD	Lawton	Lawton	Lawton	
231		GD	Lowell	Lowell		
232		GD	Lyons	Lyons		
233		GD	Mackinac Island	Mackinac Island	Mackinac Island	
234		GD	Manchester	Manchester		
235		GD	Manton	Manton	Manton	
236		GD	Marcellus	Marcellus	Marcellus	
237		GD	Marlette	Marlette	Marlette	
238		GD	Marquette	Marquette	Marquette	Dead River
239		GD	Marshall	Marshall	Marshall	Kalamazoo River
240		GD	Mason	Mason	Mason	
241		GD	Mayville	Mayville	Mayville	
242		GD	Monroe	Monroe	Monroe	
243		GD	Negaunee	Negaunee	Negaunee	
244		GD	New Baltimore	New Baltimore	New Baltimore	
245		GD	Newberry	Newberry	Newberry	
246		GD	Niles	Niles		Dowagiac Creek
247		GD	North Adams	North Adams	North Adams	
248		GD	Norway and Vulcan	Norway	Norway	
249		GD	Ontonagon	Ontonagon	Ontonagon	
250		D	Otsego	Otsego		
251		GD	Ovid	Ovid	Ovid	
252		GD	Oxford	Oxford	Oxford	
253		GD	Paw Paw	Paw Paw	Paw Paw	Paw Paw River
254		GD	Petoskey	Petoskey		Bear River
255		GD	Plymouth	Plymouth	Plymouth	
256		GD	Portland	Portland	Portland	Grand River
257		GD	Quincy	Quincy	Quincy	
258		GD	Reading	Reading	Reading	
259		GD	River Rouge	River Rouge	River Rouge	
260		GD	Roscommon	Roscommon	Roscommon	
261		GD	St. Charles	St. Charles	St. Charles	
262		GD	St. Clair	St. Clair	St. Clair	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

MICHIGAN—Continued.

B.—MUNICIPAL PLANTS.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
183		95	65	60		(80)			Addison Milling Co.	Mc.
184			250	125		75				Mc.
185									Commonwealth Power Co.	Mc.
186			710	225		150				Mc. C.
187			250	225		230				Mc.
188			160	102		60	$0.10			Mc. C.
189					175	75				Mc.
190	City		800	2,513		2,450	.10-.04	$0.02		Mc. C.
191	Private	150				200				Mc. C.
192			160	130		150				Mc.
193			160	170		180				Mc.
194			200	100		160				Mc.
195										Mc.
196			240	195		175	.10	.045		Mc. C.
197			200	150	100	90			Hydraulic Power & Light Co.	Mc. C.
198			350	200		100				Mc.
199			340	140		100	.10-.06	.06-.03		Mc. C.
200			300	200		100				Mc.
201	Private		600	450		350	.08-.04	.03		Mc. C.
202	Do		200	150		100				Mc. C.
203	Do	670				550	.06-.04	.05-.03		Mc. C.
204					67	46	.13			Mc. C.
205			400	350		(180)				Mc.
206			80	(80)		50				Mc.
207			3,500	7,070		5,600				Mc.
208			100	80		60				Mc.
209			242	250		238				Mc. C.
210			400	325		265				Mc.
211			100	150		150				Mc.
212			330	160		150				Mc.
213	Private						.07-.035	.07-.03	Escanaba Traction Co.	Mc. C
214			160	125	80	122	.07			Mc. C.
215			225	325		140	.075			Mc. C.
216									Escanaba Traction Co.	Mc. C.
217			400	700		470				Mc.
218	Private		2,160	1,690		1,365				Mc. C.
219										Mc.
220			450	580		260				Mc.
221			40	40		60				Mc.
222			280	675		660				Mc.
223	City		1,200	2,450		1,800	.06-.04	.05-.02		Mc. C.
224			350	600		435	.08-.07	.05-.03		Mc. C.
225			200	225		120				Mc.
226	Private		335	250		160	.10			Mc. C.
227			600	1,600		1,200				Mc. C.
228	Private		200	(310)		187				C.
229	Do		3,450	7,170		5,325	.05-.0175	.05-.0175		Mc. C.
230			175	165		60	.10			Mc. C.
231		368				250				Mc.
232		152				45				Mc.
233			(450)	600		450				Mc.
234		236				75				Mc.
235			300	120		75				Mc.
236			250	125		75				Mc.
237			250	132		60	.10			Mc. C.
238	Private	2,500				2,500	.05-.02	.03-.01		Mc. C.
239	Do	664				400	.05-.04	.03-.01	Commonwealth Power Co.	Mc. C.
240	Do		320	260		205				Mc. C.
241			100	100		60				Mc.
242			500	500		250				Mc.
243	Private		500	600		500	.10-.08	.04		Mc. C.
244			150	125		75				Mc.
245			270	300		180				Mc.
246	Private	700	125	120		600	.08-.05	.05-.018	Indiana & Michigan Electric Co.	Mc. C.
247			(50)	(80)		50				Mc.
248			350	335		150				Mc.
249			250	250		150				Mc.
250									Commonwealth Power Co.	Mc.
251			150	250		200	.12	.08-.05		Mc. C.
252			200	150		160				Mc.
253	Private	325				250	.10			Mc. C.
254		70	600	900		550	.07.05			Mc. C.
255			140	180		200				Mc.
256	Private	400				516	.06	.02		Mc. C.
257	Do		300	225		125	.10	.10-.03		Mc. C.
258			300	150		135	.10-.05	.05-.045		Mc. C.
259			300	350		180				Mc.
260			100	55		120				Mc.
261			200	125		75				Mc.
262			325	330		187½				Mc.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

MICHIGAN—Continued.

B.—MUNICIPAL PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
263		GD	St. Ignace	St. Ignace	St. Ignace	
264		GD	St. Johns	St. Johns	St. Johns	
265		GD	St. Joseph	St. Joseph	St. Joseph	
266		GD	St. Louis	St. Louis	St. Louis	
267		GD	Sandusky	Sandusky	Sandusky	
268		GD	Schoolcraft	Schoolcraft	Schoolcraft	
269		GD	Sebewaing	Sebewaing	Sebewaing	
270		GD	Shepherd	Shepherd		
271		GD	South Haven	South Haven	South Haven	
272		GD	Springport	Springport	Springport	
273		GD	Stanton	Stanton	Stanton	
274		GD	Sturgis and Centerville	Sturgis		St. Joseph River
275		GD	Thompsonville	Thompsonville		Big Betsy River
276		GD	Three Oaks	Three Oaks	Three Oaks	
277		GD	Traverse City	Traverse City		
278		GD	Union City	Union City	Union City	
279		GD	Vassar	Vassar	Vassar	
280		GD	Vicksburg	Vicksburg	Vicksburg	
281		GD	White Cloud	White Cloud		
282		GD	Whitehall	Whitehall	Whitehall	
283		GD	Wyandotte	Wyandotte	S. 29, T. 4 S., R. 11 E.	
284		GD	Yale	Yale	Yale	
285		GD	Ypsilanti	Ypsilanti		
286		GD	Zeeland	Zeeland	Zeeland	

C.—ALL OTHER PLANTS.

	Cambria Steel Co	H				
287	Penn Iron Mining Co	G	Mining	Vulcan	Vulcan	Menominee River
288	Do	G	do	do	do	
	Carnegie Steel Co					
289	Oliver Iron Mining Co			Iron Mountain		Menominee River
290	Detroit United Railway Co	HG	Electric railway	Birmingham	Birmingham	
291	Do			Detroit, A	Detroit	
292	Do			Detroit, B	do	
293	Do			Farmington Junction	Farmington Junction	
294	Do			Port Huron	Port Huron	
295	Do			Rochester	Rochester	
296	Detroit, Jackson & Chicago Ry. Co	G	do	Ypsilanti	Ypsilanti	
297	Detroit, Monroe & Toledo Shore Line Ry. Co		do	Monroe	Monroe	
298	Detroit & Port Huron Shore Line Ry. Co		do	New Baltimore	New Baltimore	
299	Grand Trunk Railway Co		do	Port Huron	Port Huron	
300	Marquette City & Presque Isle Ry. Co		do	Marquette	Marquette	
301	Otsego Water Power Co		Mills	Otsego	Otsego	Kalamazoo River
	Stone & Webster					
302	Houghton County Traction Co		Electric railway	Hancock	Hancock	
303	Victoria Copper Mining Co		Mining and milling	Victoria	Victoria	West branch Ontonagon River.

MINNESOTA.

A.—PUBLIC UTILITY PLANTS.

	American Light & Traction Co	H				
1	St. Paul Gas Light Co	GD	St. Paul	St. Paul	St. Paul	
	American Public Utilities Co	H				
2	Wisconsin-Minnesota Light & Power Co	GTD	Wabasha, Lake City, and Red Wing.	Red Wing	Red Wing	
3	Annandale Electric Light & Power Co	GD	Annandale	Annandale	Annandale	
4	Bellingham Electric Light Co	GD	Bellingham	Bellingham	Bellingham	
5	Beltrami Electric Light & Power Co	GT	Warfield Electric Co	Bemidji	S. 3, T. 146 N., R. 32 W.	Mississippi River
6	Big Falls Manufacturing Co	GD	Big Falls	Big Falls	Big Falls	
7	Blackduck Electric & Telephone Co	GD	Blackduck	Blackduck	Blackduck	
8	Breilein & Engel	GD	New Richland	New Richland	New Richland	
9	Brush Electric Co	D	Cloquet			
	Byllesby, H. M. & Co	M				
10	Consumers Power Co	GTD	Southeastern Minnesota	Cannon Falls	Cannon Falls	Cannon River
11	Do			Mankato	Mankato	
12	Do			Rapidan	Rapidan	Blue Earth River
13	Do			Riverside	Riverside	
14	Do			South St. Paul	South St. Paul	
15	Do			Stillwater	Stillwater	
16	Do			Taylors Falls	Taylors Falls	St. Croix River
17	Minneapolis General Electric Co			Main Street	Minneapolis	Mississippi River.
18	Northern Mississippi River Power Co	GT	do	Coon Rapids	Coon Rapids	do
19	Red River Power Co	GTD	do	Red Lake Falls	Red Lake Falls	Red Lake River

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

MICHIGAN—Continued.

B.—MUNICIPAL PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
263			200	250		170				Mc.
264			375	275		317				Mc.
265	Private				115	75				Mc. C.
266		268	180	215		195				Mc.
267	Private		200	300		225	$0.08			Mc. C.
268	Do		300	125		75	.50–$0.35			Mc. C.
269					150	95	.125			Mc. C.
270									Consolidated Light & Power Co.	Mc.
271	Private		450	700		600	.12– .05	$0.10–$0.04		Mc. C.
272			250	100		70				Mc.
273	Private		300	125		100	.10			Mc. C.
274		1,688	250	200		1,250				Mc. O.
275	Private	150				175	.06			Mc. C.
276			230	150		85				Mc.
277		800				600				Mc.
278	Private		440	230		125	.10	.10		Mc.
279	Do		120	230		130	.06			Mc. C.
280			120	140		140				Mc.
281			160	(100)		60				Mc.
282			150	150		113				Mc.
283	Private		1,200	550		550	.06– .04	.05– .02		Mc. C.
284			125	250		125				Mc.
285		300	200	350		(180)				Mc.
286			250	225		135				Mc. C.
	Total, B	10,972	32,342	41,492	687	38,966				

C—ALL OTHER PLANTS.

287	Private	5,000				3,500				M. C.
288			800	2,000		1,500				M. O. C.
289		3,850								C. M. O.
290			550	1,100		700			Detroit Edison Co	Mc. C.
291			4,400	7,500		5,500			do	Mc. C.
292			6,800	11,500		15,900			do	Mc. C.
293			2,000	2,250		1,200				Mc. C.
294										Mc. C.
295			2,500	7,500		4,150			Detroit Edison Co	Mc. C.
296			2,500	3,686		2,750			do	M. Mc. C.
297			2,000	6,700		5,450				M. Mc. C.
298			2,700	6,750		3,200				M. Mc. C.
299			1,600	3,350		2,500				Mc.
300										M. Mc.
301	Private	3,000	6,000	5,000		3,000				O. C.
302			625	1,500		1,000			Houghton County Electric Light Co.	M. Mc.
303	Private	4,000								M. O. C.
	Total, C	15,850	32,475	58,836		50,350				
	Grand total	213,111	182,783	388,116	1,435	415,276				

MINNESOTA.

A.—PUBLIC UTILITY PLANTS.

1	Private	7,800	2,600	9,000		9,300	$0.11 –$0.055	$0.05 –$0.011	Consumers Power Co	C. Mc.
2					350	195				M. Mc.
3					35	1,250	.18			C. Mc.
4					40	34				C. Mc.
5		1,100				500				Mc. SDC.
6			160	50		60				Mc.
7			210	240		50				Mc.
8	Private		70	190		65	.10	.10		C. Mc.
9									Cloquet Electric Co	Mc.
10		1,800				1,100				C.
11			600	1,210		800				C.
12		2,200				1,500				C. M. O. SDC.
13			6,000	16,100		12,000				C.
14			265	190		175				C.
15			640	1,000		750				C. M. Mc.
16		25,200				15,000				C. M. C.
17		3,400				2,020				Mc. O.
18	Public	10,500				8,125				C. M. Mc. O.
19		350	150	150		341				M. Mc. O. SDC.

[1] Lamp-hour.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

MINNESOTA—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
20	Cambridge Milling Co	GD	Cambridge	Cambridge	Cambridge	
21	Campbell, L. G., Manufacturing Co	GD	Blooming Prairie	Blooming Prairie	Blooming Prairie	
22	Cass Water, Light & Power Co	GD	Cass Lake	Cass Lake	Cass Lake	
	Central Minnesota Light & Power Co	H				
23	Renville Electric Co	GTD	Bird Island, Hector, Buffalo Lake, and Stewart.	Bird Island	Bird Island	
24	Southern Minnesota Power Co	GTD	Spring Valley, Wykoff, and Grand Meadows.	Spring Valley	Spring Valley	
25	Central Minnesota Power & Milling Co	GD	Sauk Center	Sauk Center	Sauk Center	
26	Chatfield Electric Light & Power Co	GD	Chatfield	Chatfield		Root River.
27	Chisholm Electric Co	GD	Chisholm and vicinity	Chisholm	Chisholm	
28	Citizens Light, Heat & Power Co	GTD	Canby, Porter, Taunton	Canby	Canby	
29	Clarkfield Roller Mills & Electric Light Co	GD	Clarkfield	Clarkfield	Clarkfield	
30	Cloquet Electric Co	GTD	Cloquet and vicinity	Cloquet	Cloquet	
31	Crescent Milling Co	GD		Fairfax		
32	Crookston Water Works, Power & Light Co	GD	Crookston	Crookston	S. 36, T. 150 N., R. 47 W.	Red Lake River.
33	Cuyuna Range Power Co	GTD		Brainerd	Brainerd	
34	Do		Ironton, Riverton, Burrows and Brainerd.	Deerwood	Deerwood	
35	Do		Cuyuna	Sylvan	S. 30, T. 133 N., R. 29 W.	Crow Wing River.
36	Duluth Edison Electric Co	GD	Duluth	Duluth	Duluth	
37	Eastern Minnesota Power Co	GTD	Pine City, Rush City, Harris, and vicinity.	Pine City	S. 26, T. 39 N., R. 21 W.	
38	Electrical Development Co. (The)	GT	Crookston	Crookston	Crookston	
39	Everton Electric Light & Power Co	GD	Everton	Deer River	Everton	
40	Farmington Electric Light & Power Co	D	Farmington			
41	Foley Electric Light & Power Co	GD	Foley	Foley	Foley	
42	Fulda Light & Power Co	GD	Fulda	Fulda	Fulda	
43	Glenwood Electric Light, Heating & Power Co	GTD	Glenwood and Starbuck	Glenwood	Glenwood	
44	Hanover Roller Mills Co	GD	Hanover	Hanover Mills		Crow River.
45	Heiberg, J. F., Electric Light Plant	GTD	Heiberg and Twin Valley	Heiberg	S. 16, T. 144 N., R. 44 W.	
46	Hendricks Light & Power Co	GD	Hendricks	Hendricks	Hendricks	
47	Hinckley Electric Co	GD	Hinckley	Hinckley		Grindstone River.
48	Home Electric & Heating Co	GTD	Eveleth and Fayal	Eveleth	Eveleth	
49	Jones, R. E., & Co	GD	Wabash	Wabash	Wabash	
50	Jordan Electric Light & Heating Co	GD	Jordan	Jordan	Jordan	
51	Kenyon Light & Power Co	D	Kenyon	Kenyon		
52	Kettle River Power Co	GTD	Sandstone and Hinckley	Sandstone		Kettle River.
53	Le Roy Electric Light Plant	GD	Le Roy	Le Roy	Le Roy	
54	Light, Heat & Power Co	GD	Stewartville	Stewartville	Stewartville	
55	Little Falls Water Power Co. of Minnesota	GTD	Little Falls and Pierz	Little Falls		Mississippi River.
	McCaskey, W. T., & Co	M				
56	Lesueur County Electric Light & Power Co	GD	Lesueur Center	Lesueur Center	Lesueur Center	
57	Montgomery Electric Light & Power Co	GD	Montgomery	Montgomery	Montgomery	
58	McIntosh Electric Light Plant	GD	McIntosh	McIntosh	McIntosh	
59	Mabel Elevator Co	GD		Mabel		
60	Mapleton Electric Light & Heating Plant	GD	Mapleton	Mapleton	Mapleton	
61	Melrose Milling Co	GD	Melrose	Melrose		Sauk River.
62	Minnesota Gas & Electric Co	GD	Albert Lea	Albert Lea	Albert Lea	
63	Montevideo Electric Light & Power Co	GD	Montevideo	Montevideo		Minnesota River.
64	Nichols-Chisholm Lumber Co	GD	Frazee	Frazee	Frazee	
65	Northern Power Co	GTD	Belle Plaine	Belle Plaine	Belle Plaine	
66	Do		Excelsior and vicinity	Excelsior	Excelsior	
67	Northfield Light, Heat & Power Co	GD	Northfield	Northfield		Cannon River.
	Northwestern Power Co	H				
68	Great Northern Power Co	GTD	Duluth and Superior, Wis.	Thompson	T. 48 N., R. 16 W.	St. Louis River.
69	Do	GTD	do	Virginia	Virginia	
70	Northwest Light & Power Co	H	Glencoe	Glencoe	Glencoe	
71	Do		Pipestone	Pipestone	Pipestone	
72	Hutchinson Lighting & Manufacturing Co	GTD	Hutchinson and Biscay	Hutchinson	Hutchinson	
73	Osakis Milling Co	GD	Osakis	Osakis	Osakis	
74	Otter Tail Power Co	GD	Breckenridge, Campbell, Chokio, Clinton, Doran, Elbow Lake, Foxhome, Graceville, Herman, Fergus Falls.	Dayton Hollow	S. 20, T. 132 N., R. 43 W.	Otter Tail River.
75	Do			Fergus Falls		do
76	Do			Hoot Lake		
77	Do			Graceville	Graceville	
78	Do			Morris	Morris	
79	Do			Elbow Lake	Elbow Lake	
80	Park Rapids Hydro-Electric Light & Power Plant	GD	Park Rapids	Park Rapids	S. 25, T 140 N., R. 35 W.	Fish Hook River.
	Pillsbury-Washburn Flour Mills Co	L				
81	Minneapolis Mill Co	GTD		Hennepin Island		Mississippi River.
82	St. Anthony Falls Water Power Co	GTD		St. Anthony Falls		do
83	Pine Island Roller Mills & Electric Light Co	GD	Pine Island	Pine Island	Pine Island	
84	Pine River Electric Light & Power Co	GD	Pine River	Pine River	Pine River	
85	Pipestone Electric Light, Heating & Power Co			Pipestone		
86	Plainview Electric Light & Power Co	GD	Plainview	Plainview	Plainview	
87	Public Service Co. of St. Cloud	GTD	St. Cloud, Sauk Rapids, Rockville and vicinity.	St. Cloud		Mississippi River.
88	Public Service Operating Co	GD	Owatonna	Owatonna	Owatonna	
89	Red River Lumber Co	GD	Akely	Akely	Akely	
90	Redwood Falls Light & Power Co	GD	Redwood Falls	Redwood Falls		Redwood River.

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

MINNESOTA—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
20			(200)	220		(150)				Mc.
21			125	225		37½				Mc.
22	Private		170	292		400	$0.15 - .10			C. Mc.
23	do		180	225		250	.12	$0.07 - .035		C. Mc.
24			200	225		175	.07 - .04			C. Mc.
25	Private	300	200	220		100	.10 - .05	.08 - .05		C. Mc.
26	Do	150	125	150		55	.08			C. M. Mc. SDC.
27			600	1,433		900			St. Louis Power Co	Mc.
28			160	300		275	.15 - .10	.10 - .04		C. Mc.
29	Private				150	70	.15 - .10	.10 - .06		C. Mc.
30			400	1,500		900				Mc.
31	Private		350	175		(105)	.105- .09	.10 - .07		C.
32	Do	4,000	625	1,600		1,835	.05 - .007		Electrical Development Co	Mc.O.SDC.
33					450					
34	Private	2,800	200	700		2,000	.12 - .04	.045- .0125		Mc. C.
35		400								C.Mc.SDC
36			3,000	3,000		7,500	.06 - .03	.045- .018	Great Northern Power Co	C. Mc.
37		400	300	300		400	.10 - .05	.05 - .01		Mc. O.
38		900				500				Mc.
39					80	100				C. Mc.
40									Consumers Power Co	Mc. O.
41					100	80				Mc.
42			200	75		75				C. Mc.
43	Private		300	300		185	.125- .10	.09 - .06		C. Mc.
44		115		75		24				SDC.
45	Private	150	50	50		75	.10	.05		C. Mc.
46			60	60		37½				Mc.
47		50				25			Kettle River Power Co	Mc.SDC.
48			400	410		300				Mc. O.
49	Private		100	150		75	.10	.06 - .04	Minnesota-Wisconsin Power Co.	C. Mc.
50	Do		150	145		75	.125- .10	.10 - .05		C. Mc.
51							.07 - .046		Consumers Power Co	C. Mc.
52	Private	500	250	200		500	.10	.08 - .05		C.Mc.SDC.
53			60	80		50				Mc.
54			125	100		64				Mc.
55	Private	2,000				980	.05	.03		C. Mc. O. SDC.
56					130	75				M. Mc.
57					110	62½				Mc.
58			60	60	70	25				C. Mc.
59					32	22	.125- .10			C.
60			120	40		25				C. Mc.
61		250	150	125		100				C. SDC.
62	Private		1,200	2,000		1,675	.11	.0675		C. Mc.
63	Do	400	200	750		875	.13 - .07			C.Mc.SDC.
64			(100)	(170)		100				Mc.
65			80	125		60				Mc.
66	Private		200	250		530	.15	.10 - .07	Minneapolis General Electric Co.	C. Mc.
67		170				120				SDC.
68		57,000				45,000				C. M. Mc. O.SDC.
69			4,000	4,670		3,500				C. Mc.
70			125	150		125	.125	.077		C. Mc.
71			200	395		300				Mc.
72			230	235		175	.125	.09 - .036		C. Mc.
73			350	300		25				Mc.
74										M. Mc. SDC.
75		3,080				2,700				C. M. Mc. SDC.
76										M. Mc. O.
77										M. Mc.
78			1,000	1,015						M. Mc.
79			250	85		75				M. Mc.
80		330	80	75		200				C.Mc.SDC.
81		25,000				9,000				M.O. SDC.
82		32,500				7,000				M.O. SDC.
83	Private		150	125		37½	.125			C. Mc.
84										Mc.
85										C.
86	Private		90	75	50	125	.12 - .10	.08		C. Mc.
87		3,000	500	1,000		3,200				M. Mc. O. SDC.
88			1,000	475		1,350				Mc.
89			(300)	300		412				Mc.
90	Private	300	150	250			.15 - .09			C.Mc.SDC.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

MINNESOTA—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
	River Falls Power Co	H				
91	Hastings Electric Light & Water Power Co	GD	Hastings	Hastings		
92	Root River Power Co			Preston	S. 35, T. 104 N., R. 10 W.	Root River
93	Royalton Power & Light Co	GD	Royalton	Royalton		
94	Rushford Power Co	GD	Rushford	Rushford		Root River
95	South Haven Electric Light Co				South Haven	
96	Twin City Rapid Transit Co	HGD		Main steam plant		
97	Do			Hennepin		
98	Minneapolis Street Ry. Co	GD		Minneapolis		Mississippi River
99	Walker, W. H., Milling Co	GD	Alden	Alden	Alden	
100	Warfield Electric Co	GTD	Bemidji and Nymore	Bemidji	Bemidji	
101	Western Mesaba Electric Co	GTD	Bovey, Coleraine, and Iron Range Township.	Bovey	Bovey	
102	Wheaton Electric Light Co	GD	Wheaton	Wheaton	Wheaton	
103	Wherland Electric Co	D	North Redwood, Morgan, Redwood Falls, and Morton.	Redwood Falls	Redwood Falls	
104	Wisconsin Railway, Light & Power Co	GTD	Winona, Rollingstone, Minneapolis city, and Homer.	Winona	Winona	

B.—MUNICIPAL PLANTS.

105		GD	Ada	Ada	Ada	
106		GD	Adrian	Adrian	Adrian	
107		GD	Aitkin	Aitkin	Aitkin	
108		GD	Albany	Albany	Albany	
109		GD	Alexander	Alexander	Alexander	
110		GD	Anoka	Anoka	Anoka	
111		GD	Appleton	Appleton	Appleton	
112		GD	Argyle	Argyle	Argyle	
113		GD	Arlington	Arlington	Arlington	
114		GD	Aurora	Aurora	Aurora	
115		GD	Austin	Austin	Austin	
116		GD	Bagley	Bagley	Bagley	
117		GD	Barnesville	Barnesville	Barnesville	
118		GD	Baudette	Baudette	Baudette	
119		GD	Belgrade	Belgrade	Belgrade	
120		GD	Benson	Benson	Benson	
121		GD	Biwabik	Biwabik	Biwabik	
122		GD	Blue Earth	Blue Earth	Blue Earth	
123		D	Brainerd	Brainerd	Brainerd	
124		D	Breckenridge	Breckenridge	Breckenridge	
125		GD	Brown Valley	Brown Valley	Brown Valley	
126		GD	Buffalo	Buffalo	Buffalo	
127		GD	Buhl	Buhl	Buhl	
128		GD	Caledonia	Caledonia	Caledonia	
129		GD	Chaska	Chaska	Chaska	
130		GD		Comfrey	Comfrey	
131		GD	Dawson	Dawson	Dawson	
132		GD	Delano	Delano	Delano	
133		GD	Detroit	Detroit	Detroit	
134		D	East Grand Forks	East Grand Forks	East Grand Forks	
135		GD	Echo	Echo	Echo	
136		GD	Elbow Lake	Elbow Lake	Elbow Lake	
137		GD	Ellsworth	Ellsworth	Ellsworth	
138		GD	Ely	Ely	Ely-S. 2, T. 7 N., R. 15 W.	
139		GD	Eyota	Eyota	Eyota	
140		D	Fairfax	Fairfax	Fairfax	
141		GD	Fairmont	Fairmont	Fairmont	
142		D	Fergus Falls	Fergus Falls		
143		GD	Fosston	Fosston	Fosston	
144		GD	Gaylord	Gaylord	Gaylord	
145		GD	Grand Rapids	Grand Rapids	Grand Rapids	
146		GTD	Granite Falls, Maynard, and Wood Lake.	Granite Falls		Minnesota River
147		GD	Hardwick	Hardwick	Hardwick	
148		GD	Hawley	Hawley	Hawley	
149		GD	Twin Valley	Heiberg	S. 16, T. 144 N., R. 44 W.	
150		GD	Henderson	Henderson	Henderson	
151		GD	Hibbing	Hibbing	Hibbing	
152		GD	Jackson	Jackson		Des Moines River
153		GD	Kasson	Kasson	Kasson	
154		GD	Kelliher	Kelliher	Kelliher	
155		GD	Keewatin	Keewatin	Keewatin	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

MINNESOTA—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
91	Do	900	75	200		780	$0.15	$0.075–$0.035	Wisconsin-Minnesota Power Co.	C. Mc.
92		(1,000)				600				C.
93	Private	150	125	125		120	.11	.075	Little Falls Water Power Co.	C. Mc.
94		300				150				Mc. SDC.
95										O.
96			15,400	66,700		52,500				C. M. Mc.
97		[1](15,000)				9,000				C.
98		[1](10,000)				7,000				C.
99			140	120		30				Mc.
100			600	750		550			Beltrami Electric Light & Power Co.	Mc.
101			300	200		115				Mc.
102	Private		100	125		100	$0.12 – .03	.10 – .03	Otter Tail Power Co	C. Mc.
103							.17 – .07	.10 – .04	Redwood Falls Power Co	C. Mc.
104			2,500	3,330		2,500	.10 – .035	.10 – .015		C. M. Mc.
	Total, A	188,495	49,000	124,560	1,597	222,102				

B.—MUNICIPAL PLANTS.

105			275	200		125	$0.08	$0.08		C. Mc.
106	Private		250	225		145	.10	.08		C. Mc.
107			150	95		120				Mc.
108	Private		90	75	43	80	.125	.125		C.
109	Do		300	300		175	$0.10 – .09	$0.08 – .04		C. Mc.
110			100	100		250				Mc. O.
111			100	100		60				Mc.
112			100	125		75				Mc.
113			70	60		(35)				Mc.
114			150	50		50				Mc.
115			400	750		1,250				Mc.
116	Private				40	45	.15			C. Mc.
117	Do		170	180		125	.11 – .07	.08 – .05		C. Mc.
118			250	225		140				Mc.
119					25	15				Mc.
120	Private		250	300		180	.10	.08		Mc. C.
121			300	270		210				Mc.
122			100	225		40				Mc.
123									Cuynna Range Power Co	Mc.
124							.09 – .02	.06	Otter Tail Power & Light Co.	C. Mc.
125						75				C.
126					90	55				Mc.
127			300	120		75				Mc.
128			340	250		150				Mc.
129	Private		140	160		100	.11	.11 – .066		C. Mc.
130										C.
131					190	130				Mc.
132	Private		75	65		35				C. Mc.
133			250	300		266				Mc.
134	Private						.08	.06	Red River Power Co	C. Mc.
135	Do			65			.15	.10		C.
136			250	85		40	.12 – .03	.10 – .03	Otter Tail Power Co	Mc. O.
137					50	30				Mc.
138			300	100		75				C. Mc.
139	Private				25	20	.12			C. Mc.
140	Do						.15	.12	Crescent Milling Co	Mc. O.
141					840	585				C. Mc.
142									Otter Tail Power Co	Mc. SDC.
143			150	225		135				Mc.
144			80	60		40				Mc.
145			250	200		150				C. Mc.
146		340			170	300				Mc. SDC.
147					25	15	.12			C. Mc.
148					75	40				Mc.
149				50		(75)				C.
150			80	60		40	.08	.04		Mc. O.
151			(600)	700		600				Mc.
152		240	250	225		290				C. Mc.
153			275	200		125				Mc.
154	Private		80	185		75	.12			Mc. O.
155						200				C.

[1] These amounts are a duplication of the figures under Nos. 81 and 82, and are not included in totals.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

MINNESOTA—Continued.

B.—MUNICIPAL PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
156		GD	Lake City	Lake City	Lake City	
157		GD	Lakefield	Lakefield	Lakefield	
158		GD	Lake Park	Lake Park	Lake Park	
159		GD	Lanesboro	Lanesboro		South Fork of Root River.
160		GD	Le Sueur	Le Sueur	Le Sueur	
161		GD	Litchfield	Litchfield	Litchfield	
162		GD	Long Prairie	Long Prairie	Long Prairie	
163		GD	Luverne	Luverne	Luverne	
164		GD	Lyle	Lyle	Lyle	
165		GD	McKinley	McKinley	McKinley	
166		GD	Madison	Madison	Madison	
167		GD	Mahnomen	Mahnomen	Mahnomen	
168		GD	Mantorville	Mantorville	S. 28, T. 107 N., R. 16 W.	
169		GD	Marshall	Marshall	Marshall	
170		D	Maynard	Maynard	Maynard	
171		GD	Mazeppa	Mazeppa	Mazeppa	
172		GD	Melrose	Melrose	Melrose	
173		GD	Milaca	Milaca	Milaca	
174		GD	Moorhead	Moorhead	Moorhead	
175		GD	Nashwauk	Nashwauk	Nashwauk	
176		GD	New Prague	New Prague	New Prague	
177		GD	New Ulm	New Ulm	New Ulm	
178		D	North St. Paul	North St. Paul	North St. Paul	
179		GD	Olivia	Olivia	Olivia	
180		GD	Ortonville	Ortonville	Ortonville	
181		GD	Paynesville	Paynesville	Paynesville	
182		GD	Pelican Rapids	Pelican Rapids	Pelican Rapids	
183		GD	Perham	Perham	Perham	
184		GD	Preston	Preston	Preston	
185		GD	Princeton	Princeton	Princeton	
186		GD	Rochester	Rochester	Rochester	
187		GD	Rushford	Rushford	Rushford	
188		GD	St. Charles	St. Charles	St. Charles	
189		GD	St. James	St. James	St. James	
190		GD	St. Peters	St. Peters	St. Peters	
191		GD	Shakopee	Shakopee	Shakopee	
192		GD	Sherburn	Sherburn	Sherburn	
193		GD	Sleepy Eye	Sleepy Eye	Sleepy Eye	
194		GD	South Stillwater	South Stillwater	South Stillwater	
195		GD	Springfield	Springfield	Springfield	
196		GD	Spring Grove	Spring Grove	Spring Grove	
197		GD	Staples	Staples	Staples	
198		GD	Starbuck	Starbuck	Starbuck	
199		GD	Hospital	State hospital	St. Peters	
200		GD	Stephen	Stephen	Stephen	
201		GD	Thief River Falls	Thief River Falls		Red Lake River
202		GD	Tower	Tower		
203		GD	Tracy	Tracy	Tracy	
204		GD	Two Harbors	Two Harbors	Two Harbors	
205		GD	Tyler	Tyler	Tyler	
206		GD	Ulen	Ulen	Ulen	
207		GD	Virginia	Virginia	Virginia	
208		D	Wabash	Wabash	Wabash	
209		GD	Wadena	Wadena	Wadena	
210		GD	Walker	Walker	Walker	
211		GD	Warren	Warren	Warren	
212		GD	Warroad	Warroad	Warroad	
213		GD	Waseca	Waseca	Waseca	
214		GD	Wells	Wells	Wells	
215		GD	Willmar	Willmar	Willmar	
216		GD	Windom	Windom	Windom	
217		GD	Winthrop	Winthrop	Winthrop	
218		D	Woodlake	Woodlake	Woodlake	
219		GD	Worthington	Worthington	Worthington	

C.—ALL OTHER PLANTS.

220	Appleton Mill Co	Mfg	Mill at Appleton	Appleton		Pomme de Terre River
221		Mfg	Mill at Northfield	Ames Mill	Northfield	Cannon River
222	Campbell, L. G., Milling Co	Mfg	Mill at Owatonna	Owatonna		Straight River
223	Cannon Falls Mill Co	Mfg	Mill at Cannon Falls	Cannon Falls		Cannon River
224	Cannon Valley Milling Co	Mfg	do	do		do
225	Chippewa Milling Co	Mfg	Mill at Montevideo	Montevideo		Chippewa River
226		Mfg	Mill at Clinton Falls	Clinton Falls Mill		Straight River
227	Cussons Milling Co	Mfg	Mill at Stewartville	Stewartville		Root River
228		Mfg	Mill at Dundas	Dundas Mill		Cannon River
229	Elk River Milling Co	Mfg	Mill at Elk River	Elk River Mill		Elk River

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

MINNESOTA—Continued.

B.—MUNICIPAL PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
156	Private		500	484		275	$0.125	$0.10	Wisconsin-Minnesota Light & Power Co.	C. Mc.
157			180	85		75				C. Mc
158					85	60				Mc.
159	Private	189				66				Mc. C. SDC.
160			250	300		160				Mc.
161			300	260		190				C. Mc.
162			170	145		130				Mc.
163			250	150		180				Mc.
164			140	60		35	.15 - .05			C. Mc.
165			160	50		25				Mc.
166			300	250		200	.10			C. Mc.
167			125	110		78				C. Mc.
168	Private	40	50	50		70	.10			C. Mc.
169			450	275		210	.06	.06		C. Mc.
170									City of Granite Falls	Mc.
171						10				Mc.
172			250	125		75				Mc.
173			140	100		75				C. Mc.
174			404	1,320		1,000				C. Mc.
175			200	120		75			Wisconsin Steel Co.	Mc.
176	Private		220	200		115	.10 - .07	.07		C. Mc.
177			600	600		462				Mc.
178										Mc.
179					80	60			Renville Electric Co.	Mc.
180			200	175		125				Mc.
181			175	150		80				C. Mc.
182	Private		150	125		120				C. Mc.
183			160	130		80				Mc.
184	Private						.10	.10 -.02	Root River Power & Light Co.	C. Mc.
185			250	200		240				Mc.
186			1,100	1,500		920				C. Mc.
187			100	150		85			Rushford Power Co.	Mc.
188			240	200		110				Mc.
189			180	200		145				Mc.
190			300	275		250				Mc.
191			160	125		75			Minneapolis General Electric Co.	Mc.
192	Private		85	65		60	.14	.10		C. Mc.
193			250	225		195				Mc.
194			125	90		60				Mc.
195			275	85		50				Mc.
196	Private			35		(20)	.10			C.
197	Do		400	200		200	.10-.05	.08 -.05		C. Mc.
198					50	70	.12-.08		Glenwood Electric Light, Heat & Power Co.	C. Mc.
199	State land		1,250	550		350				C.
200			75	52		30				Mc.
201	Private	400			450	500	.09	.06		Mc.O.SD
202		190	150	130		100				Mc.
203			300	195		112½				C. Mc.
204	Private		360	385		500	.06	.03		C. Mc.
205					65	67				Mc.
206			40	40		50				Mc.
207			600	685		885				C. Mc.
208									Wisconsin-Minnesota Light & Power Co.	C.
209			375	450		200				Mc.
210			100	125		55				C. Mc.
211			250	200		125				Mc.
212				(250)		(150)				C.
213	Private		200	140		75	.09-.06	.055-.04	Consumers Power Co.	C. Mc.
214			150	(410)		250	.11	.075		C. Mc.
215	Private		450	300		250	.10-.07	.07 -.05		C. Mc.
216			100	80		60				Mc.
217			225	160		90	.10	.07		C. Mc.
218									City of Granite Falls	Mc.
219			450	600		366				C. Mc.
	Total, B	1,399	20,389	19,896	2,303	17,561				

C.—ALL OTHER PLANTS.

220	Private	150	750	350		35				C. SDC.
221		170								SDC.
222		35				Water plant.				SDC.
223		225								SDC.
224		200				42				SDC.
225		220		125						SDC.
226		33								C. SDC.
227		60				Water plant.				SDC.
228		160								SDC.
229		150								SDC.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

MINNESOTA—Continued.

C.—ALL OTHER PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
230	Faribault Woolen Mill Co	Mlg	Mill at Faribault	Faribault Mills	S.30, T.110 N., R. 20 W.	Cannon River
231	Farmers Milling Co	Mlg	Mill at Cold Springs	Cold Springs Mill		Sauk River
232	Fergus Falls Manufacturing Co	Mlg	Mill at Fergus Falls	Fergus Falls		Otter Tail River
233		Mlg	do	Fergus Mill		do
234		Mlg		Fertile		Sand Hill River
235		Mlg		Forest City		North Fork Crow River
236		Mlg	Mill at Forest Mills	Forest Mills		Zumbro River
237				French Lake		North Fork Crow River
238				Green Lake		do
239		Mlg	Mill at Hagan	Hagan Mill		Chippewa River
240	Hansen & Baryen Milling Co	Mlg	Mill at Thief River Falls	Thief River Falls		Red Lake River
	Hennepin Paper Co					
241	(Lessor Little Falls Water Power Co.)	L		Little Falls		Mississippi River
242	Itaska Paper Co	Mlg	Mill at Grand Rapids	Grand Rapids		do
243	Kettle River Power Co		Quarry at Sandstone	Sandstone		Kettle River
244				Kingsbury Locks		Pelican River
245				Kingston		North Fork Crow River
246		Mlg	Mill at Lakeview	Lakeview Mill		Pelican River
247		Mlg	Mill at Lanesboro	Lanesboro Mill		South Fork Root River
248		Mlg	Mill at Le Sauk	Le Sauk Mill		Le Sauk River
249		Mlg	Mill	Long Lake Mill		
250		Mlg	do	Maine Mill	S. 26 and 35, T. 134 N., R. 41 W.	Otter Tail River
251				Manannah		North Fork Crow River
252		Mlg	Mill at Mazeppa	Mazeppa Mill		Zumbro River
253		Mill	Mill at Millerville	Millerville		Chippewa River
254	Minneapolis & Ontario Power Co	Mlg	Mill at International Falls	International Falls	S. 27, T. 71 N., R. 24 W.	Rainey River
255	New London Milling Co	Mlg	Mill at New London	New London		North Fork Crow River
256		Mlg	Mill at North Redwood	North Redwood Mill		Redwood River
257	Northwestern Milling Co			Little Falls		Mississippi River
258	Northwest Paper Co	Mlg	Mill at Brainerd	Brainerd		do
259	Do	Mlg	Mill at Cloquet	Cloquet (upper)		St. Louis River
260	Do	Mlg	do	Cloquet (lower)		do
261		Mlg	Mill at Chatfield	Orion Mill		Root River
262		Mlg	Mill at Oronoco	Oronoco Mill		North branch Zumbro River.
263		Mlg	Mill at Osage	Osage Mill		Straight River.
264		Mlg	Mill at Austin	Peerless Mill		Cedar River
265	Pelican River Mill Co	Mlg	Mill at Elizabeth	Elizabeth	S. 32, T. 134 N., R. 43 W.	Pelican River
266	Pillsbury Milling Co	Mlg	Mill at Anoka	Lincoln Mill		Rum River
267		Mlg	Mill at Preston	Preston Mill		South Fork Root River
268				Ramsey		Cedar River
269		Mill	Mill at Austin	Red Cedar Mill		do
270	Red River Milling Co	Mlg	Mill at Fergus Falls	Fergus Falls		Otter Tail River
271		Mlg	Mill at Richwood	Richwood Mill		Buffalo River
272	Rochester Milling Co	Mlg	Mill at Rochester	Rochester		South branch Zumbro River.
273	Do	Mlg	do	Zumbro		do
274		Mlg	Mill at Rockford	Rockford Mill		Crow River
275	Saenger	Mill	Sawmill at Hanover	Saenger's Sawmill		do
276	St. Francis Milling Co	Mlg	Mill at St. Francis	St. Francis		Rum River
277	Sheffield King Manufacturing Co	Mlg	Mill at Cannon Lake	Cannon Lake		Cannon River
278		Mlg	Mill	Simpson Mill		Root River
279		Mlg	Mill at Spencer Brook	Spencer Brook Mill		Spencer Brook
280		Mlg	Mill at Spruce Hill	Spruce Hill Mill		Belle River
281		Mlg	Mill at Sunrise	Sunrise Mill		Sunrise River
282		Mlg	Mill at Swift Falls	Swift Falls Mill		East branch Chippewa River.
283		Mlg	Mill at Terrace	Terrace Mill		do
284				Terrebonne		Red Lake River
285	Teleson, Geo	Mlg	Mill at St. Cloud	St. Cloud		Mississippi River
286		Mill	Mill	Two Inlets Mill		Two Inlets River
287		Mlg	do	Verndale Mill		Wing River
288	Watah Pulp & Paper Co			Sartell		Mississippi River

MISSISSIPPI.

A.—PUBLIC UTILITY PLANTS.

1	Alcorn Electric Light Co	GD	Alcorn	Alcorn	Alcorn	
	American Public Utilities Co	H				
2	Jackson Light & Traction Co	GTD	Jackson	Jackson	Jackson	
3	Bay St. Louis Ice, Light & Bottling Works	GD	Bay St. Louis and Waveland	Bay St. Louis	Bay St. Louis	
4	Booneville Light & Water Co	GD	Booneville	Booneville	Booneville	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

MINNESOTA—Continued.

C.—ALL OTHER PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
230	Private	124	140	52		Water plant.			H. M. Matterson	C. SDC.
231		155								C. SDC.
232		80								C. SDC.
233		100								C. SDC.
234		50								C. SDC.
235		50				do				C. SDC.
236		50								C. SDC.
237		50								C. SDC.
238		75								C. SDC.
239		45								C. SDC.
240		129								SDC.
241	Private	2,000		250		do				C. SDC.
242	Do	3,500	1,000	950		625				C. O. SDC.
243		300				Water plant.				SDC.
244		65				do				SDC.
245		50								SDC.
246		50				Water plant.				SDC.
247		158				140				C. SDC.
248		100		100		Water plant.				SDC.
249		75								SDC.
250		131								SDC.
251		50								SDC.
252		84		50		Water plant.				SDC.
253		50								SDC.
254		12,500		10,000		7,500				C. Mc. SDC.
255		160				Water plant.				SDC.
256		50				do				SDC.
257		300								C. SDC.
258		805								O. SDC.
259		1,386								O. SDC.
260		6,336								O. SDC.
261		70				do				SDC.
262		150								SDC.
263		50								SDC.
264		70		75						SDC.
265		100		85						C. SDC.
266		450				do				SDC.
267		40								SDC.
268										SDC.
269		125				300				SDC.
270		230				Water plant.				SDC.
271		40				do				SDC.
272		20								SDC.
273		80								SDC.
274		35								SDC.
275		87		30						SDC.
276		125				do				SDC.
277		400		1,200		22				SDC.
278		50				Water plant.				SDC.
279		20								SDC.
280		50								SDC.
281		80				do				SDC.
282		61								SDC.
283		40								SDC.
284		80								SDC.
285		350								C. SDC.
286		40				do				SDC.
287		60								SDC.
288		6,000		1,600		2,700				C. O. SDC.
	Total, C	39,364	1,890	14,867		11,326				
	Grand totals	229,258	71,279	159,323	3,900	250,989				

MISSISSIPPI.

A.—PUBLIC UTILITY PLANTS.

1			550	550		500				Mc.
										Mc. M.
2			1,559	4,000		3,550	$0.10 –$0.05	$0.075–$0.015		Mc. M. C.
3	Private		200	250		150	.14 – .12	.10 – .05		Mc. C.
4					100	100				Mc.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY, MISSISSIPPI—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
5	Capitol Light & Power Co	GD	Jackson	Jackson	Jackson	
6	Columbia Ice & Power Co	GD	Columbia	Columbia	Columbia	
7	Columbus Railway, Light & Power Co	GTD	Columbus	Columbus	Columbus	
	Converse, H	GD				
8	(Lessor, city of Crystal Springs)	L	Crystal Springs	Crystal Springs	Crystal Springs	
9	Corinth Electric Light & Power Co	GD	Corinth	Corinth	Corinth	
10	Delta Light & Traction Co	GTD	Greenville and Lake, Ark	Greenville	Greenville	
	Doherty Operating Co	M				
11	Hattiesburg Traction Co	GTD	Hattiesburg	Hattiesburg	Hattiesburg	
12	Meridian Light & Railway Co		Meridian	Meridian	Meridian	
13	Electric Light & Manufacturing Co	GD	Prentiss	Prentiss	Prentiss	
14	Gulfport & Mississippi Coast Traction Co	GTD		Gulfport	Gulfport	
15	Home Light & Ice Co	GD	Cleveland	Cleveland	Cleveland	
16	Itta Bena Cotton Oil Co	GD	Itta Bena	Itta Bena	Itta Bena	
17	Laurel Light & Railway Co	GTD	Laurel and Ellisville	Laurel	Laurel	
18	Lexington Compress & Oil Mill Co	GD	Lexington	Lexington	Lexington	
19	Lucedale Light & Power Co	D	Lucedale	Lucedale	Lucedale	
20	McComb City Electric Light & Power Co	GD	McComb and Summit	McComb	McComb	
21	Magnolia Electric Light Co	GD	Magnolia	Magnolia	Magnolia	
22	Mississippi Lumber Co	GD	Quitman	Quitman	Quitman	
23	Panola Electric Light & Power Co	GD	Sardis, Batesville, and Como	Sardis	Sardis	
24	Pascagoula Street Railway & Power Co	GTD	Pascagoula and Moss Point	Pascagoula	Pascagoula	
25	Philadelphia Electric Co	D	Philadelphia	Philadelphia	Philadelphia	
26	Planters Oil Mill & Gin Co	GD	Kosciusko	Kosciusko	Kosciusko	
27	Planters Oil Mill	GD	Tunica	Tunica	Tunica	
28	Pontotoc Electric Light & Power Co	GD	Pontotoc	Pontotoc	Pontotoc	
	Richton Lumber Co	H				
29	Richton Light & Power Co	GD	Richton	Richton	Richton	
30	Sexton, J. C., & J. M	GD	Indianola	Indianola	Indianola	
31	Tylertown Light & Power Co	GD	Tylertown	Tylertown	Tylertown	
	United Utilities Co	H				
32	Southern Railway & Light Co	GTD	Natchez	Natchez	Natchez	
33	Vicksburg Light & Traction Co	GTD	Vicksburg	Vicksburg	Vicksburg	
34	Wells Lumber Co	GD	Lumberton	Lumberton	Lumberton	
35	Wiggins Electric Light Co	GD	Wiggins	Wiggins	Wiggins	
36	Winona Water, Sewerage, Ice & Light Co	GD	Winona	Winona	Winona	

B.—MUNICIPAL PLANTS.

37	GD	Aberdeen	Aberdeen	Aberdeen	
38	GD	Ackerman	Ackerman	Ackerman	
39	GD	Amory	Amory	Amory	
40	GD	Belzoni	Belzoni	Belzoni	
41	GD	Bolton	Bolton	Bolton	
42	GD	Brookhaven	Brookhaven	Brookhaven	
43	GD	Byhalia	Byhalia	Byhalia	
44	GD	Canton	Canton	Canton	
45	GD	Carrollton, and North and South Carrollton.	Carrollton		
46	D	Charleston	Charleston	Charleston	
47	GD	Clarksdale and Lyon	Clarksdale	Clarksdale	
48	GD	Clinton	Clinton	Clinton	
49	GD	Collins	Collins	Collins	
50	GD	Durant	Durant	Durant	
51	GD	Fayette	Fayette	Fayette	
52	GD	Friar Point	Friar Point	Friar Point	
53	GD	Gloster	Gloster	Gloster	
54	GD	Greenwood and North Greenwood.	Greenwood	Greenwood	
55	GD	Grenada	Grenada	Grenada	
56	GD	Hazelhurst	Hazelhurst	Hazelhurst	
57	GD	Hollendale	Hollendale	Hollendale	
58	GD	Holly Springs	Holly Springs	Holly Springs	
59	GD	Houston	Houston	Houston	
60	GD	Leland	Leland	Leland	
61	GD	Macon	Macon	Macon	
62	D	Mount Olive	Mount Olive	Mount Olive	
63	GD	New Albany	New Albany	New Albany	
64	GD	Okolona	Okolona	Okolona	
65	GD	Osyka	Osyka	Osyka	
66	GD	Poplarville	Poplarville	Poplarville	
67	GD	Port Gibson	Port Gibson	Port Gibson	
68	GD	Rosedale	Rosedale	Rosedale	
69	GD	Ruleville	Ruleville	Ruleville	
70	GD	Senatobia	Senatobia	Senatobia	
71	GD	Shaw	Shaw	Shaw	
72	GD	Starkville	Starkville	Starkville	
73	GD	Tupelo	Tupelo	Tupelo	
	University of Oxford	GD			
74	(Lessor, city of Oxford)	L	Oxford	Oxford	Oxford
75	GD	Water Valley	Water Valley	Water Valley	
76	GD	West Point	West Point	West Point	
77	GD	Woodville	Woodville	Woodville	
78	GD	Yazoo City	Yazoo City	Yazoo City	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

MISSISSIPPI—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
5			450	800		632				C.
6			240	200		137½				Mc.
7	Private		900	1,000		975	$0.12 –$0.07	$0.10 –$0.03		Mc. M. C.
8			190	175		70				Mc.
										Mc.
9			450	450		210				Mc.
10			1,200	1,730		1,270				Mc. M. C.
11	Private		900	2,075		2,075	.14 – .066	.09 – .02		Mc. M. C.
12	Do		2,250	5,220		6,400	.12 – .04	.06 – .013		Mc. M. C.
13	Do		80	40		75	.12			C.
14	Do		2,000	6,000		4,000	.15 – .06	.06 – .02		Mc. C.
15			150	165		100	.15 – .10			C.
16			160	100		85				Mc.
17			1,200	2,130		2,200				Mc.
18	Private		200	125		90	.15			Mc. C.
19							.15		Kansas City Lumber Co.	C.
20			800	1,400		1,075				Mc.
21	Private		250	250		125	.20 – .10			Mc. C.
22	Do		408	60		45				C.
23			200	150		120				Mc.
24			600	500		375	.15 – .075	.06 – .03		Mc. C.
25										Mc.
26	Government		300	350		270	.125– .08			Mc. C.
27			(40)	40		35				Mc.
28	Private		60	100		30	.15 – .09	.10 – .06		Mc. C.
										Mc.
29			160	80		50				Mc.
30			250	175		155				Mc.
31			150	40		75				Mc.
										Mc. M.
32			800	1,100		1,800				Mc. M.
33			1,500	1,650		1,875				Mc. M.
34			(120)	150		120				Mc.
35				375		150	.15			Mc. C.
36	Private		450	350		210	.15 – .10			Mc. C.
	Total		18,767	31,780	100	30,129				

B.—MUNICIPAL PLANTS.

37	Private		300	400		330				Mc. C.
38			100	80		50	$0.20			Mc. C.
39			185	260		150				Mc.
40	Private		200	200		125	.10	$0.05–$0.03		Mc. C.
41			150	93		50				Mc.
42			400	450		300	.15– .09	.01– .02		Mc. C.
43			75	55		30				Mc.
44	Private		564	525		310	.10– .08	.10– .08		Mc. C.
45	Do		125	95		62½	.15– .125			Mc. C.
46	Do		80	(60)		(35)	.15– .12			Mc. C.
47			600	900		650	.12– .05	.07– .03		Mc. C.
48			225	200		185				Mc. C.
49			200	155		150	.10– .10			Mc. C.
50	Private		250	250		185				Mc. C.
51			80	35		25				Mc.
52			100	70		60				Mc.
53			225	105		60				Mc.
54			938	1,540	80	1,150	.12– .06	.06– .02		Mc. C.
55			150	150		200				Mc. C.
56			200	150		200	.10			Mc. C.
57	Private		100	40		45				Mc. C.
58			275	315		210				Mc.
59			120	120		60				Mc.
60			225	(110)		65				Mc.
61			250	275		200				Mc.
62										Mc.
63			275	275		190	.12– .08			Mc. C.
64	Private		160	300		191	.10			Mc. C.
65			175	50		50				Mc.
66			200	175		75				Mc. C.
67			285	200		155				Mc. C.
68	Private		200	60		60	.15			C.
69			125	80		48				Mc.
70			200	100		60				Mc.
71	Private				70	90	.10			Mc. C.
72			340	360		195				Mc.
73			400	700		500				Mc. C.
74			450	200		100				Mc.
75			300	350		225				Mc.
76			250	300		210	.15– .04			Mc. C.
77			200	90		60				Mc.
78	Private		450	600		450	.16– .09	.08– .04		Mc. C.
	Total, B		10,127	10,473	150	7,546				
	Grand total		28,894	42,253	250	37,675				

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

MISSOURI.

A.—PUBLIC UTILITY PLANTS.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
1	Adrian Electric Light & Power Co	GD	Adrian	Adrian	Adrian	
2	Ash Grove Milling & Electric Co	GD	Ash Grove	Ash Grove	Ash Grove	
3	Belton Electric Light Co	D	Belton	Belton	Belton	
4	Billings Light, Power & Water Co	GD	Billings	Billings	Billings	
5	Blackwater Electric Light Co	D	Blackwater	Blackwater	Blackwater	
6	Bland Electric Light & Power Co	GD	Bland	Bland	Bland	
7	Bloomfield Electric Light, Heat, Power & Water Co.	GD	Bloomfield	Bloomfield	Bloomfield	
8	Bonner, James A	GD	Polk and Dallas Counties	Buffalo	Buffalo	
9	Booneville Electric Light & Power Co	GD	Booneville	Booneville	Booneville	
10	Braymer Light & Fuel Co	GD	Braymer	Braymer	Braymer	
11	Brookfield Electric Light Co	GTD	Linn County	Brookfield	Brookfield	
12	Brunswick Light & Water Co	GD	Brunswick	Brunswick	Brunswick	
13	Bucklin Light Co	GD	Bucklin	Bucklin	Bucklin	
14	California Electric Light & Power Co	GD	California	California	California	
15	Campbell Mill & Light Co	GD	Campbell	Campbell	Campbell	
16	Caruthersville Ice & Light Co	GD	Caruthersville	Caruthersville	Caruthersville	
17	Cassville Milling & Power Co	GD	Cassville	Cassville	Cassville	
18	Cassville & Western Ry. Co	GD	Cassville and Exeter	do	do	
19	Citizens Electric Light Co	GD	Higbee	Higbee	Higbee	
20	Clark Electric Co	GD	Clark	Clark	Clark	
21	Concordia Electric Co	GD	Concordia	Concordia	Concordia	
22	Consumers Electric Light & Power Co	GD	De Soto and vicinity	De Soto	De Soto	
23	Dameson, C. H., Electric Light Plant	GD	Huntsville	Huntsville	Huntsville	
24	Day, H. B., Light, Heat & Power Plant	GD	New Madrid	New Madrid	New Madrid	
25	De Kalb Electric Co	GD	Maysville	Maysville	Maysville	
	Doherty Operating Co	M				
26	City Light & Traction Co	GTD	Sedalia	Sedalia	Sedalia	
27	Empire District Electric Co	GTD	Jasper County	Forest Mills		
28	Do		do	Grand Falls		
29	Neosho Electric Light Co	GD	Neosho	Neosho	Neosho	
30	Ozark Power & Water Co	GTD	Joplin and Springfield	Branson		White River.
31	St. Joseph Railway, Light, Heat & Power Co.	GTD	St. Joseph	St. Joseph	St. Joseph	
32	Edgerton Light & Power Co	D	Edgerton	Edgerton	Edgerton	
33	Edina Light Co	GD	Edina	Edina	Edina	
34	Eldon Electric Light Co	GD	Eldon	Eldon	Eldon	
35	Ewing & Childers	GD	Grant City	Grant City	Grant City	
36	Excelsior Springs Water, Gas & Electric Co	GD	Excelsior Springs and vicinity.	Excelsior Springs	Excelsior Springs	
37	Fairfax Light, Heat & Power Co	D	Fairfax	Fairfax	Fairfax	
38	Fayette Light, Ice & Coal Co	GD	Fayette	Fayette	Fayette	
	Federal Light & Traction Co	H				
39	Springfield Gas & Electric Co	GD	Springfield	Springfield	Springfield	
40	Fredericktown Ice, Light & Power Co	GD	Fredericktown	Fredericktown	Fredericktown	
41	Gilliam Electric Light & Power Co	GD	Gilliam	Gilliam	Gilliam	
42	Greenfield Electric Light & Power Co	GD	Greenfield	Greenfield	Greenfield	
43	Hamilton Electric Light Co	GD	Hamilton	Hamilton	Hamilton	
44	Hawks, E. L., Roller Mills	GD	Puxico	Puxico	Puxico	
45	Hermann Electric Light Co	GD	Hermann	Hermann	Hermann	
46	Home Light & Water Co	GD	Ste. Genevieve and St. Marys	Ste. Genevieve	Ste. Genevieve	
47	Houston Electric Light & Power Co	D	Houston	Houston	Houston	Piney River.
48	Iberia Mill & Electric Light Co	GD	Iberia	Iberia	Iberia	
49	Ice & Electric Co	GD	Kennett	Kennett	Kennett	
	Illinois Traction Co	H				
50	Jefferson City Light, Heat & Power Co	GD	Jefferson City	Jefferson City	Jefferson City	
51	Intelman & Sterrett	GD	Cole Camp	Cole Camp	Cole Camp	
	Interstate Electric Corporation	H				
52	Peoples Gas & Electric Co	GD	Chillicothe	Chillicothe	Chillicothe	
53	Trenton Gas & Electric Co. of Missouri	GD	Trenton	Trenton	Trenton	
	Kansas City Railway & Light Co	H				
54	Kansas City Electric Light Co	GTD	Points in Kansas	Kansas City	Kansas City	
55	Do		do	Missouri River	do	
56	Kearney Electric Light Co	D	Kearney	Kearney	Kearney	
57	Keep & Crisman Electric Light Plant	D	Vienna	Vienna	Vienna	
58	Keystone Hotel Co		(City of Joplin)	Joplin		
59	King City Electric & Manufacturing Co	GD	King City	King City	King City	
60	Kirkville Light, Power & Ice Co	GD	Kirksville	Kirksville	Kirksville	
61	Laclede Electric Light Co	D	Laclede	Laclede	Laclede	
62	Laclede Gas Light Co. (The)	GD	St. Louis	St. Louis	St. Louis	
63	La Plata Light, Heat & Ice Co	GD	La Plata	La Plata	La Plata	
64	Lathrop Light, Heat & Power Co	D	Lathrop	Lathrop	Lathrop	
65	Lawrence Co. Water, Light & Cold Storage Co	GD	Lawrence County	Aurora	Aurora	
66	Lewistown Mill & Electric Light Co	GD	Lewistown	Lewistown	Lewistown	
67	Liberal Light Co	GD	Liberal	Liberal	Liberal	
68	Liberty Electric Light & Power Co	GD	Liberty	Liberty	Liberty	
	Light & Development Co. of St. Louis (The)	H				
69	Cupples Station Light, Heat & Power Co		St. Louis			
70	Missouri Public Utilities Co	GD	Cape Girardeau and Scott Counties.	Cape Girardeau	Cape Girardeau	
71	Do	GD	Charleston	Charleston	Charleston	
72	Do	GD	Dexter	Dexter	Dexter	
73	Do	GD	Poplar Bluff	Poplar Bluff	Poplar Bluff	
74	Do	GD	Sikeston	Sikeston	Sikeston	
75	(Lessor, Cape Girardeau and Jackson Interurban Ry. Co.)	GD	Cape Girardeau	Cape Girardeau	Cape Girardeau	
76	St. Charles Electric Light & Power Co	GD	St. Charles	St. Charles	St. Charles	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

MISSOURI.

A.—PUBLIC UTILITY PLANTS.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating o generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
1	Private		70	60		20	$0.15 –$0.10			Mc.
2			125	125	80	75				Mc.
3										Mc.
4			120	75		60				Mc.
5										Mc.
6					20	15	.15			Mc.
7	Private		100	187		145	.16 – .10			Mc. C.
8	Do		160	160		50	.15			C.
9			200	200		185				Mc.
10	Private		125	165		75	.125	$0.125		Mc. C.
11	Do		600	700		475	.15			M. Mc. C.
12	Do		300	215		130	.12 – .08	$0.10 – .05		Mc. C.
13	Do				35	20	.15	.10 – .07	Marceline	Mc. C.
14	Do		150	175		185	.15 – .075	.075– .03		Mc. C.
15			160	250		160				Mc.
16			390	390		175				Mc.
17			100	150		300				Mc.
18			300	258		300				M. Mc.
19			100	80		60				Mc.
20	Private				35	20	.12			Mc. C.
21	Do				60	42½	.15			C.
22	Do		150	280		150	.15 – .08			M. Mc. C.
23			160	230		150				Mc.
24			120	140		85				Mc.
25			125	125		75				Mc.
26	Private		1,557	1,600		1,200	.10 – .08	.05 – .025		M. Mc. C.
27		400			150	200				Mc. M.
28			8,315	36,225	1,600	24,750	.10	.05	Ozark Power & Water Co	O. Mc. M.
29					133	200	.10 – .05	.015	do	Mc. C.
30		20,000				11,250				M. Mc. O
31			5,520	10,130		7,600				M. Mc.
32									Smithville Electric Light Plant.	Mc.
33			200	200		150				Mc.
34	Private		125	100		75	.15 – .10			C.
35	Do				120	50	.15 – .10			Mc. C.
36	Do		550	950		775	.115– .0325	.07 – .03		M. Mc. C
37									Tarkio Electric Light & Water Co.	Mc.
38	Private		300	500		250	.10	.07 – .03		Mc. C.
39	Do		2,200	4,040		3,150	.10 – .035	.032– .01	Ozark Power & Water Co	M. Mc. C.
40			200	170		100				Mc.
41	Private				25	15	.15			Mc. C.
42	Do		125	215		100	.125– .10			Mc. C.
43			250	100		40				Mc.
44			100	100		50				Mc.
45			200	165		163				Mc.
46	Private		275	125		100	.12 – .10	.12 – .04		Mc. C.
47		90				100				Mc. C.
48										Mc.
49			500	350		225				Mc.
50	Private		920	1,170		1,150	.10 – .07	.072– .0275		M. Mc. C.
51			100	75	11	50	.15	.05		Mc. C.
52			250	365		280	.08 – .05	.05		C.
53			450	875		550	.13	.04		M. Mc.
54			3,000	5,000		3,000				Mc.
55			27,000	48,300		53,500				
56								.12	Excelsior Springs, Water, Gas & Electric Co.	Mc. C.
57										Mc.
58										C.
59					125	85				Mc.
60	Private		500	700		365	.11 – .04	.10 – .04		Mc. C.
61							.18– .13		Brookfield Electric Light Co	Mc. C.
62			4,000	10,000		8,000				M.Mc.O.C.
63			200	175		20				Mc.
64	Private						.125		Plattsburg Light & Power Co	C.
65	Do		400	300		225	.12– .08	.025		M. Mc. C.
66					60	40				Mc. C.
67					45	42½	.10			Mc. C.
68			400	400		300				Mc.
69										M. Mc.
70			750	3,000		2,675	.11– .03	.10– .015		Mc. C.
71			225	225		300				Mc.
72			160	285		135				Mc.
73			500	400		1,500				Mc.
74			250	600		390				Mc.
75			300	300		200				Mc.
76			500	300		200	.11– .03	.06– .03		Mc. C.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

MISSOURI—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
77	Linn Creek Light & Power Co	GD	Linn Creek	Linn Creek	Linn Creek	
78	Linn Electric Light Co	GD	Linn	Linn	Linn	
79	Louisiana Light, Power & Traction Co	GD	Louisiana and Bowling Green.	Louisiana	Louisiana	
	McCaskey & Co	M				
80	Iron County Electric Light & Power Co	GD	Iron and Cole Counties	Ironton	Ironton	
81	Pike County Electric Light & Power Co	D	Bowling Green	Bowling Green	Bowling Green	
82	McMullin Light & Power Plant	GD	Parma	Parma	Parma	
83	Maitland Electric Light & Power Co	GD	Maitland	Maitland	Maitland	
84	Marshfield Electric Co	GD	Marshfield	Marshfield	Marshfield	
85	Maryville Electric Light & Power Co	GD	Maryville and Pickering	Maryville	Maryville	
86	Memphis Electric Light, Heat & Power Co	GD	Memphis	Memphis	Memphis	
87	Merchants Light & Power Co	GD	Novinger	Novinger	Novinger	
88	Mexico Power Co	GD	Mexico and Centralia	Mexico	Mexico	
	Middle West Utilities Co	H				
89	Lexington Gas & Electric Co	GD	Lexington	Lexington	Lexington	
90	Missouri Gas & Electric Service Co	GD	El Dorado Springs	El Dorado Springs	El Dorado Springs	
91	Do	GD	Lexington	Lexington	Lexington	
92	Do	GD	Liberty	Liberty	Liberty	
93	Do	GD	Marshall	Marshall	Marshall	
94	Do	GD	Orrick	Orrick	Orrick	
95	Do	GD	Richmond	Richmond	Richmond	
96	Missouri Electric, Gas & Water Co	D	Cainsville	Cainsville	Cainsville	
97	Montgomery Ice & Electric Co	GD	Montgomery City	Montgomery City	Montgomery City	
98	Mound City Electric Light & Ice Co	GD	Holt County	Mound City	Mound City	
99	Mountain Grove Ice & Electric Co	GD	Mountain Grove	Mountain Grove	Mountain Grove	
	National Light & Power Co	H				
100	Perry County Public Utilities Co	GD	Perryville and vicinity	Perryville	Perryville	
101	New London Electric & Ice Co	GD	New London	New London	New London	
102	Norborne Fuel, Ice & Light Co	GD	Norborne	Norborne	Norborne	
	North American Co	H				
103	American Light & Power Co		St. Charles	St. Charles	St. Charles	
104	Electric Co. of Missouri	GD	St. Louis and Franklin Counties.	Pacific	Pacific	
105	Do	GD	Union	Union	Union	
106	Do	GD	Washington	Washington	Washington	
107	Union Electric Light & Power Co	GTD		St. Louis		
108	(Lessor, Neighborhood Light, Power & Heat Co.)	L		do		
109	North Kansas City Light, Heat & Power Co	D	North Kansas	North Kansas	North Kansas	
110	North Missouri Light & Power Co	D	New London, Frankford, and Perry Center.			
	Ohio & Western Utilities Co.:					
111	Fort Scott & Nevada Light, Heat, Water & Power Co.	GTD	Vernon County, Fort Scott, and Kansas.	Nevada	Nevada	
112	Osceola Light & Water Co	GD	Osceola	Osceola	Osceola	
113	Owensville Electric Light Co	GD	Owensville	Owensville	Owensville	
114	Platte City Electric Light & Power Co	GD	Platte City	Platte City	Platte City	
115	Plattsburg Light & Power Co	GD	Plattsburg & Lathrop	Plattsburg	Plattsburg	
	Public Service Audit Co	H				
116	Moberly Light & Power Co	GD	Moberly	Moberly	Moberly	
117	Republic Electric Lighting Co	GD	Republic	Republic	Republic	
118	St. James Ice & Power Co	GD	St. James	St. James	St. James	
119	Salem Light & Power Co	GD	Salem	Salem	Salem	
120	Savannah Electric Light & Power Co	D	Savannah	Savannah	Savannah	
121	Scott Co. Milling Co	GD	Oran	Oran	Oran	
122	Smithville Electric Light Co	GD	Smithville	Smithville	Smithville	
123	Stanberry Light & Power Co	GD	Stanberry	Stanberry	Stanberry	
124	Stover Mill Electric Light Plant	GD	Stover	Stover	Stover	
125	Tarkio Electric & Water Co	GD	Atchison County	Tarkio	Tarkio	
126	Valley Park Electric Co	D	Valley Park	Valley Park	Valley Park	
127	Vandalia Electric Light Co	GD	Vandalia	Vandalia	Vandalia	
128	Warrensburg Light & Power Co	GD	Warrensburg	Warrensburg	Warrensburg	
129	Warrenton Electric Light & Power Co	GD	Warrenton and Truesdail	Warrenton	Warrenton	
130	Water, Light & Transit Co	GD	Carrollton and South Carrollton.	Carrollton	Carrollton	
131	Water Power Light Co	GD	Ozark	Ozark	S. 22, T. 127 N., R. 21 W.	Finley River
132	Wellsville Light, Power, & Water Co	GD	Wellsville	Wellsville	Wellsville	
133	West St. Louis Water & Light Co	GD	St. Louis County	Hine	Hine	
134	Willow Springs Light, Power & Manufacturing Co	GD	Willow Springs	Willow Springs	Willow Springs	
135	Windsor Light, Water, Heat & Power Co	GD	Windsor	Windsor	Windsor	

B.—MUNICIPAL PLANTS.

136		GD	Albany	Albany	Albany	
137		GD	Appleton City	Appleton City	Appleton City	
138		GD	Bethany	Bethany	Bethany	
139		GD	Bolivar	Bolivar	Bolivar	
140		GD	Breckenridge	Breckenridge	Breckenridge	
141		GD	Burlington Junction	Burlington Junction	Burlington Junction	
142		GD	Butler	Butler	Butler	
143		GD	Cameron	Cameron	Cameron	
144		GD	Canton	Canton	Canton	
145		GD	Carthage	Carthage	Carthage	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

MISSOURI—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
77					100	55				Mc.
78	Private			50		40				C.
79			375	440		490	08.10	$0.06–.03		Mc.
80					110	75				Mc.
81									Louisiana Light, Power & Traction Co.	M. Mc.
82	Private		80	50		25	.15			Mc. C.
83					65	50				Mc.
84			225	80		50	.15–.125			Mc. C.
85	Private		500	520	120	350	.15–.075	.10–.035		Mc. C.
86			230	150		110				Mc.
87	Private		150	75		45	.125			Mc. C.
88			1,000	800		430	.10–.05			Mc. C.
89			400	450		300				M. Mc.
90			125	150		75				Mc.
91	Private		550	650		537	.12	.05–.025		Mc. C.
92			345	325		250	.10	.06		Mc. C.
93	Private		450	805		680	.10–.05	.08–.007		Mc. C.
94	Do				50	32	.15			Mc. C.
95	Do		425	375		250	.14–.07	.05–.0375		Mc. C.
96									Grand River Coal & Coke Co	Mc.
97			180	185		82	.12			Mc. C.
98			200	200		200				Mc.
99			340	135		90	.125	.075–.05		Mc. C.
100			125	130		75				M. Mc.
101			100	40		25				Mc.
102			170	170		75				Mc.
103	Private		300	150		125	.11–.03	.06–.03	Electric Co. of Missouri	M. C.
104						50			Mississippi River Power Co	M. Mc.
105			80	75		50				Mc.
106			425	375		225				Mc.
107			39,880	93,500		76,000			Electric Co. of Missouri	M. Mc.
108			900	1,150		550				Mc.
109									Kansas City Electric Light Co	Mc.
110									Mississippi River Power Co	Mc. C.
111			610	720		400				M. Mc.
112	Private		60	47		50	.20			Mc. C.
113			35	35		25				Mc.
114			100	125		60				Mc.
115			250	250		125				Mc.
116	Private		1,000	1,000		1,400	.12			C. Mc. M.
117			100	50		37½	.15			C.
118						70				Mc.
119			130	120		90				Mc.
120	Private						.15–.12	.08–.07	St. Joseph Railway Light, Heat & Power Co.	Mc. C.
121	Private		413	325		45	.15	.15		Mc. C.
122			115	160		115				Mc.
123			250	260		155				Mc.
124	Private		60	50		80				C.
125	Do		300	350		425	.15	.05		Mc. C.
126	Private						.12–.06	.08–.03		C.
127			125	246		180				Mc.
128			350	405		320				M. Mc.
129			180	105		105				Mc.
130	Private		700	975		780	.10–.06	.05–.02		Mc. M. C.
131	Private	100			75	70	.20–.10	.075–.015	Ozark Power & Water Co	Mc. C.
132			150	150		75				Mc.
133	Private		800	200		140	.12		Electric Co. of Missouri	M. Mc. C.
134			210	175	50	75				Mc.
135			170	345		164				Mc.
	Total, A	20,590	117,660	241,330	3,069	212,891				

B.—MUNICIPAL PLANTS.

136			350	350		250				Mc.
137			80	80		50				Mc.
138			250	240		180				Mc.
139			200	160		100				Mc.
140			160	85		60				Mc.
141			90	100		50	$0.15–$0.08			Mc. C.
142			300	350		230				Mc.
143			508	265		225				Mc.
144			180	300		180				Mc. C.
145			820	850		600	.07–.03	$0.0125		Mc. C.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY

MISSOURI—Continued.

B.—MUNICIPAL PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
146		GD	Chillicothe	Chillicothe	Chillicothe	
147		GD	Clarence	Clarence	Clarence	
148		GD	Clinton	Clinton	Clinton	
149		GD	Columbia	Columbia	Columbia	
150		GD	Elsberry	Elsberry	Elsberry	
151		GD	Farmington	Farmington	Farmington	
152		D	Forest City	Forest City	Forest City	
153		GD	Fulton	Fulton	Fulton	
154		GD	Gallatin	Gallatin	Gallatin	
155		GD	Glasgow	Glasgow	Glasgow	
156		GD	Hale	Hale	Hale	
157		GD	Hannibal	Hannibal	Hannibal	
158		GD	Harrisonville	Harrisonville	Harrisonville	
159		GD	Higginsville and Corder	Higginsville	Higginsville	
160		GD	Holden	Holden	Holden	
161		GD	Independence	Independence	Independence	
162		GD	Joplin	Joplin	Joplin	
163		GD	Kahoka	Kahoka	Kahoka	
164		GD	Kirkwood	Kirkwood	Kirkwood	
165		GD	La Bell	La Bell	La Bell	
166		GD	La Grange	La Grange	La Grange	
167		GD	Lamar	Lamar	Lamar	
168		GD	Lancaster	Lancaster	Lancaster	
169		GD	Lebanon	Lebanon	Lebanon	
170		D	Linneus	Linneus	Linneus	
171		GD	Macon County	Macon	Macon	
172		GD	Malden	Malden	Malden	
173		GD	Marceline	Marceline	Marceline	
174		GD	Milan	Milan	Milan	
175		GD	Monett	Monett	Monett	
176		GD	Monroe City	Monroe City	Monroe City	
177		GD	Mount Vernon	Mount Vernon	Mount Vernon	
178		GD	Odessa	Odessa	Odessa	
179		GD	Oregon and Forest City	Oregon	Oregon	
180		GD	Palmyra	Palmyra	Palmyra	
181		GD	Paris	Paris	Paris	
182		GD	Pierce City	Pierce City	Pierce City	
183		GD	Princeton	Princeton	Princeton	
184		GD	Queen City	Queen City	Queen City	
185		GD	Rich Hill	Rich Hill	Rich Hill	
186		GD	Rockport	Rockport	Rockport	
187		GD	Rolla	Rolla	Rolla	
188		GD	St. Joseph	St. Joseph	St. Joseph	
189		GD	St. Louis	St. Louis	St. Louis	
190		GD	Salisbury	Salisbury	Salisbury	
191		GD	Shelbina and Shelbyville	Shelbina	Shelbina	
192		GD	Slater	Slater	Slater	
193		GD	Sturgeon	Sturgeon	Sturgeon	
194		GD	Sweet Springs	Sweet Springs	Sweet Springs	
195		GD	Tipton and Farmers	Tipton	Tipton	
196		GD	Troy	Troy	Troy	
197		GD	Unionville	Unionville	Unionville	
198		GD	Versailles	Versailles	Versailles	
199		GD	Warsaw	Warsaw	Warsaw	
200		D	West Plains	West Plains	West Plains	

C.—ALL OTHER PLANTS.

201	Joplin & Pittsburg Ry. Co	GD	Electric railway	Asbury	Asbury	
202	Mexico Investment & Construction Co	GT	do	Mexico	Mexico	
	North American Co	H				
203	United Railways Co. of St. Louis	GT	Electric railways	Central Station	St. Louis	
204	Do	GT	do	Horton Place	do	
205	Do	GT	do	Northern Station	do	
206	Patterson, W. H		Manufacturing	Smithville	Smithville	Smith Fork
207	St. Francois Co. R. R. Co	GT	Electric railway	Farmington	Farmington	
208	South West Missouri R. R. Co	GT	do	Webb City	Webb City	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

MISSOURI—Continued.

B.—MUNICIPAL PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
146			450	450		375				Mc.
147			310	160		95				Mc.
148			250	325		200				Mc.
149			1,200	2,200		1,500	$0.10–$0.07	$0.06–$0.025		Mc. C.
150			100	100		75	.12			Mc. C.
151			300	215		165				Mc. C.
152									City of Oregon	Mc.
153			300	650		382				Mc.
154			300	200		250				Mc.
155			200	145		100				Mc.
156			70	40		40				
157			1,000	3,000		1,525	.08–.06	.05–.018		Mc. C.
158			225	225		140	.10			Mc. C.
159	Private		250	185		175	.10–.04	.05		Mc. C.
160			250	150		185				Mc.
161			950	800		700	.10–.07	.05–.02		Mc. C.
162			900	750		475	.08–.035	.08–.035	Keystone Hotel Co.	Mc. C.
163			120	110		100	.15–.10			Mc. C.
164	Private		350	367		375	.10–.035			Mc. C.
165			150	150		125				Mc.
166			75	75		37½				Mc.
167			300	300		225				Mc.
168			120	125		70				Mc.
169	Private		300	190		125	.12	.06		Mc. C.
170	Do						.13–.10	.055	Brookfield Electric Light Co.	C.
171			500	700		500	.105–.06	.06–.04		Mc. C.
172			100	100		60				Mc.
173	Private		300	350		162½	.125	.07		Mc. C.
174			160	150		60				Mc.
175	Private		375	400		250	.08–.04	.04		Mc. C.
176			350	200		160				Mc.
177			100	130		130				Mc.
178			100	150		60	.125–.08	.08		Mc. C.
179			90	90		60				Mc.
180			200	150		150				Mc.
181			200	125		120				Mc.
182	Private		120	225		150	.125–.10			Mc. C.
183			160	125		125	.10	.10–.05		Mc. C.
184					50	50				Mc.
185			300	170		305	.10–.06	.05–.04		Mc.
186	Private		210	125		75	.15–.08			Mc. C.
187			560	360		237½				Mc.
188			800	500		270				Mc.
189						685				Mc.
190			300	300		175				Mc.
191	Private		300	325		200	.10–.07	.06–.04		Mc. C.
192	Do		325	260		160	.11–.06	.11–.04		Mc. C.
193	Do		80	74		60				Mc. C.
194					120	75	.10–.08	.05		Mc. C.
195			250	225		125	.15–.07			Mc. C.
196			125	100		210				Mc.
197	Private		160	130		103	.12			Mc. C.
198			100	(100)		60				Mc.
199			100	75		50				Mc.
200							.10–.07	.06–.04	Spring River Power Co.	Mc. C.
	Total, B		17,773	19,331	170	14,193				

C.—ALL OTHER PLANTS.

201			2,025	2,550		1,700			Spring River Power Co.	Mc. M.
202			300	250		130				Mc. C.
203	Private		6,400	16,000		12,000			Union Electric Light & Power Co. and Electric Co. of Missouri	C.
204	Do		6,000	9,070		6,800				C.
205	Do		6,400	11,130		8,500				C.
206	Private	80		100						C.
207	Do		500	400		300				Mc. C.
208	Do		3,500	3,000		1,750			Empire Distributing Co.	Mc. C.
	Total, C	80	25,125	42,500		29,180				
	Grand total	20,670	160,558	303,161	3,239	256,264				

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

MONTANA.

A.—PUBLIC UTILITY PLANTS

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
	Amalgamated Copper Co.:					
1	Anaconda Copper Mining Co	GTD	Anaconda and Belt	Anaconda	Anaconda	
2	Baker Light & Power Co	GD	Baker	Baker	Baker	
3	Benton Electric Light Co	D	Fort Benton			
4	Bowen Bros. Electric Light & Power Co	D	Philipsburg			
	Byllesby, H. M., & Co	M				
5	Northern Idaho & Montana Power Co	GTD	Kalispell, Columbia	Big Forks	T. 27 N., R. 20 W	Swan River
6	Do	GTD	Falls and Whitefish	Polsen	Polsen	
7	Chinook Light & Power Co	GD	Chinook	Chinook	Chinook	
8	Clark-Missoula Power Co	GT	Missoula Light & Water Co.	Bonner	Bonner	Clarks Fork
9	Coalville-Fromberg Electric Co	GD	Coalville and Fromberg	Coalville	Coalville	
10	Economy Power Co	GD	Virginia City	Blaine Springs	Varney	Blaine Springs Creek
11	Forsyth Electric Light & Power Co	GD	Forsyth	Forsyth	Forsyth	
12	Gardiner Electric Light & Water Co	GD	Gardiner	Gardiner	Gardiner	Gardiner River
13	Glendive Heat, Light & Power Co	GD	Glendive	Glendive	Glendive	
14	Granite County Power Co	GD	Maxville	Maxville	Maxville	Flint Creek
15	Harlowton Light & Water Co	GD	Harlowton	Harlowton	Harlowton	
16	Helena Light & Railway Co (J. G. White & Co., Inc.)	D	Helena			
17	Jennings Light & Power Co	GD	Fairview	Fairview	Fairview	
18	Kendall Power Co	GD	Kendall and Hilgar	Kendall	Kendall	Warm Springs Creek
19	Libby Water Works, Electric Light & Power Co	GD	Libby	Libby	Libby	Flower Creek
20	Malta Light Co	GD	Malta	Malta	Malta	
21	Missoula Light & Water Co	GD	Hamilton, Bonner	Hamilton	Hamilton	
22	Do		Missoula and vicinity	Missoula	Missoula	
23	Montana Power Co	HGTD	Central Montana	Billings	Billings	
24	Do	HGTD	do	Havre	Havre	
25	Do	HGTD	do	Butte	Butte	
26	Do	HGTD	do	Conrad	Conrad	
27	Do	HGTD	do	Phoenix	Butte	
28	Do	HGTD	do	Livingston	Livingston	Yellowstone River
29	Do	HGTD	do	Madison, No. 1		Madison River
30	Do	HGTD	do	Madison, No. 2	T. 4 S., R. 1 E	do
31	Great Falls Power Co	GTD	do	Black Eagle	T. 20. N., R. 3 E	Missouri River
32	Do	GTD	do	Billings, No. 1	T. 1 S., R. 26 E	Yellowstone River
33	Do	GTD	do	Billings, No. 2	T. 1 S., R. 26 E	do
34	Do	GTD	do	Canyon Ferry	T. 10 N., R. 1 W	Missouri River
35	Do	GTD	do	Divide	T. 1 S., R. 10 W	Big Hole River
36	Do	GTD	do	Great Falls	Great Falls	Missouri River
37	Do	GTD	do	Hauser	T. 12 N., R. 2W	do
38	Do	GTD	do	Rainbow	T. 21 N., R. 2E	do
39	Lewistown Electric & Power Co	GTD	do	Lewistown	Lewistown	Big Spring Creek
40	Thompson Falls Power Co	GD	Thompson Falls	Prospect Creek	T. 21 N., R. 29 W	Prospect Creek
41	Do		Coeur d'Alene district, Idaho.	Thompson Falls	Thompson Falls	Clark's Fork
42	Musselshell Electric Light Plant	GD	Musselshell	Musselshell	Musselshell	
43	Neihart Water Co	GD	Neihart	Neihart	Neihart	O'Brien Creek
44	Northwestern Improvement Co	GD	Red Lodge	Red Lodge	Red Lodge	
45	Plains Water & Light Co	GD	Plains	Plains	Plains	
46	Pony Electric Co	GD	Pony	Pony	Pony	North Willow Creek
47	Roundup Coal Co	GD	Roundup and Kelvine	Roundup	Roundup	
48	Saltese Electric Light & Water Co	GD	Saltese	Saltese	Saltese	Packer Creek
49	Schoenfield, H., Electric Light & Water Plant	GD	Superior and Iron Mountain.	Superior	Superior	Flat Creek
50	Sidney Light & Power Co	GD	Sidney	Sidney	Sidney	
51	Somers Lumber Co	GD	Somers	Somers	Somers	
52	Union Electric Co	GD	Dillon	Dillon, No. 1	Dillon	Beaverhead
53	Do	GD	do	Dillon, No. 2	do	Lovell Springs
54	Valier Townsite Co	GD	Valier	Valier	Valier	
55	White Sulphur Springs Electric Co	GD	White Sulphur Springs	White Sulphur Springs	White Sulphur Springs	Smith River

B.—MUNICIPAL PLANTS.

56	Glasgow Electric Light, Power & Water Works	GD	Glasgow	Glasgow	Glasgow	
57	Miles City Light & Power Co	GD	Miles City	Miles City	Miles City	

C.—ALL OTHER PLANTS.

	Amalgamated Copper Co	H				
58	Anaconda Copper Mining Co	GT	Smelter	Flint Creek	S. 36, T. 6 N., R. 14 W.	Flint Creek
59	Do	G	do	Great Falls	Great Falls	Missouri River
60	Billings Traction Co	G	Electric railway	Billings	Billings	
61	Butte Electric Railway Co	G	do	Butte	Butte	
62	Electric Hot Springs Co	GD	Corwin Springs Hotel	Corwin Springs	Corwin Springs	Bassett Creek
63	Jessup Milling Co	G		Jessup		
64	Landers Power Co	GD	Gould Manufacturing district.	Gould	Gould	
65	United States Reclamation Service		Pumping	Huntley	S. 4, T. 2 N., R. 29 E.	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

MONTANA.

A.—PUBLIC UTILITY PLANTS.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
1	Private		11,600	9,000		3,000			Montana Power Co	Mc. O.
2	Do		75	60		75				Mc.
3	Do								Montana Power Co	Mc. O.
4	Do								do	Mc. O.
5	Do	2,820				1,610	$0.13–$0.08	$0.06 –$0.02		M. Mc. O.
6	Do		200	250		250	.20	.08 – .04		Mc. O.
7	Do		185	125		75	.18– .14	.12		Mc. O.
8	Do	3,200	900	1,067		2,400				Mc. O.
9	Do		450	300		100				Mc.
10	Do	650				450	.16			Mc. O.
11			440	450		310	.20– .15	.07 – .03		Mc. O.
12	Private	140				55				Mc. O.
13			768	1,800		1,250	.15– .05			M. Mc. O.
14	Private	1,000				750	.15			O.
15			160	130		100	.20– .15	.05 – .03		Mc. O.
16								.11 – .03	Montana Power Co	M. Mc. O.
17			225	150		100				Mc.
18	Private	450				300	.10			O.
19	Do	390				300	.15	.09 – .05		O.
20					60	35				Mc.
21			300	400		400			Clark Missoula Power Co	O.
22			900	150		500	.15– .035	.035– .012	do	Mc. O.
23			940	750		500				M. O.
24			350	350		200				O.
25			2,750	6,000		4,000				M. O.
26			140	125		90	.15– .04	.07		M. Mc. O.
27			1,998	375		200	.15– .04	.07		M. O.
28	Private	2,600				1,500	.15– .04	.07		M. Mc. O.
29	Public	3,000				2,000	.15– .04	.07		M. O.
30	Do	13,400				9,000	.15– .04	.07		M. O.
31	Private	2,500				3,000	.15– .04	.07		M. Mc. O.
32	Do	1,800	900	700		1,080	.15– .04	.07		M. Mc. O.
33	Do	900				600	.15– .04	.07		M. Mc. O.
34	Public	12,000				7,100	.15– .04	.07		M. O.
35	Forest	4,000				3,000	.15– .04	.07		M. Mc. O.
36	Private	60,000				40,000	.15– .04	.07		M. O.
37	Forest	25,500				17,750	.15– .04	.07		M. O.
38	Private	38,400				21,000	.15– 04	.07		M. Mc. O.
39	Do	500				350	.15– .04	.07		M. Mc. O.
40	Do	1,100				750	.15– .01	.07		M. Mc. O.
41	Do	14,000				10,000				O.
42				15	10	10	[1].75			Mc. O.
43	Private	150				37½	[1]1.00			Mc. O.
44			4,300	5,676		1,050	.13– .06	.026– .012		Mc. O.
45			100	100		80	.15	[2]36.00	Thompson Falls Power Co	O.
46	Private	100				75	[1].50			O.
47			1,050	500		550	.15– .06	.07 – .03		Mc. O.
48	Public	60				50	[1].50			Mc. O.
49	Do	50				20	.12	.10	Montana Power Co	Mc. O.
50			300	170		150	.15– .06	.06 – .04		O.
51			1,400	1,500		405	[1].50			O.
52	Private	360	200	150		300	.16– .03	.05 – .03		M. Mc. O.
53	Do	260				150				M. O.
54			170	75		60	.20– .18			Mc. O.
55	Private	75				120	.15			O.
	Total, A	189,405	30,801	30,353	75	137,237				

B.—MUNICIPAL PLANTS.

56			250	205		130	$0.17–$0.09	$0.08		Mc. O.
57			750	800		570	.12– .06	$0.05– .015		Mc. O.
	Total, B		1,000	1,005		700				

C.—ALL OTHER PLANTS.

58	Forest	2,330				1,100				O.
59	Private	9,500							Montana Power Co	O.
60						150				M. C.
61			1,000	1,200		725				M. C.
62	Public	60				40				Mc. O.
63			50	60		150				O.
64	Private	1,000				500				Mc. O.
65	Government	600								Mc. O.
	Total, C	13,490	1,050	1,260		2,665				
	Grand total	202,895	32,851	32,618	75	140,602				

[1] Lamp-month.

[2] Horsepower-year.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

NEBRASKA.

A.—PUBLIC UTILITY PLANTS.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
1	Adams Electric Light Co	GD	Adams	Adams	Adams	
2	Ainsworth Light & Power Co	GD	Ainsworth	Ainsworth	Ainsworth	
3	Albion Electric Light & Power Co	GD	Albion	Albion		Beaver
4	Anselmo Electric Light & Power Co	GD		Anselmo	Anselmo	
5	Arlington Light, Heat & Power Co	GD	Arlington	Arlington	Arlington	
6	Ashland Light, Mill & Power Co	GD	Ashland	Ashland		
7	Atlanta Electric Light & Waterworks	GD	Atlanta	Atlanta	Atlanta	
8	Auburn Mutual Lighting & Power Co	GD	Auburn	Auburn	Auburn	
9	Barry, J. S.	GD		Odell		
10	Beaver Crossing Light & Power Co	GD	Beaver Crossing	Beaver Crossing	Beaver Crossing	
11	Blue River Power Co	GD	Seward and Saline counties.	Crete		Big Blue River
12	Boehler, Emil	G		McLean		
13	Bow Valley Roller Mills	G		Wynot		
14	Bremers, jr., H. J.	GD	David City	David City	David City	
15	Bridgeport Electric Light & Power Co	GD	Bridgeport	Bridgeport	Bridgeport	
16	Calloway Milling & Electric Light Co	GD	Calloway	Calloway	Calloway	
17	Cambridge Electric Light Co	GD	Cambridge	Cambridge	Cambridge	
18	Campbell Electric Light & Power System	GD		Campbell		
19	C. & R. Electric Co	GD	Scottsbluff and Gering	Scottsbluff	Scottsbluff	
20	Clarks Electric Light Plant	GD	Clarks	Clarks	Clarks	
	Continental Gas & Electric Corporation	H				
21	Aurora Electric Co	GD	Aurora	Aurora	Aurora	
22	Nebraska Gas & Electric Co	GD	Beatrice, Blue Springs and Wymore.	Beatrice	Beatrice	
23	Do	GD	Blair	Blair	Blair	
24	Do	GD	Norfolk, Tilden, and Meadow Grove.	Norfolk	Norfolk	
25	Nebraska Lighting Co	D	Plattsmouth	Plattsmouth	Plattsmouth	
26	York Gas & Electric Co	GD	York and McCool Junction.	York	York	
27	Cooper, O. A., & Sons	GD	Humboldt and Table Rock.	Humboldt	Humboldt	
28	Creighton Gas, Electric Light & Power Co	GD	Creighton	Creighton	Creighton	
29	Custer Electric Co	GD	Broken Bow	Broken Bow	Broken Bow	
30	Davenport Electric Light Plant	GD	Davenport	Davenport	Davenport	
31	Davis, E. N	GD			Cozad	
32	Deshler Light & Power Co	GD	Deshler	Deshler	Deshler	
33	DeWitt Electric Light & Power Co	GD	DeWitt	DeWitt	DeWitt	
34	Diamond Milling & Light Co	GD		Salem		
	Doherty Operating Co	M				
35	Fremont Gas & Electric Light Power Co	GD	Fremont and Cedar Bluffs.	Fremont	Fremont	
36	Lincoln Gas & Electric Light Co	GD	Lincoln, Havelock, Waverly University Place.	Lincoln	Lincoln	
37	Doniphan Electric Light & Power Co	D	Doniphan	Doniphan		
38	Edgar Light & Power Co	GD		Edgar		
39	Electric Light & Telephone Co	GD	Lindsay	Lindsay	Lindsay	
40	Erickson, A. S	GD	Funk	Funk	Funk	
41	Exeter Electric Light & Power Co	GD	Exeter	Exeter	Exeter	
42	Fairmont Electric Light & Water Co	GD	Fairmont	Fairmont	Fairmont	
43	Fullerton Electric Light & Power Co	GD	Fullerton	Fullerton	Fullerton	
44	Geneva Electric Co	GD	Geneva	Geneva	Geneva	
45	Gibbon Electric Light Co	GD	Gibbon	Gibbon	Gibbon	
46	Gilman, S. F	GD	Valentine	Valentine		Minichaduza
47	Giltner Light Co	GD		Giltner		
48	Gothenburg Light & Power Co	GD	Gothenburg	Gothenburg	Gothenburg	
49	Grand Island Electric Co	GD	Grand Island and Doniphan.	Grand Island	Grand Island	
50	Gresham Electric Light Power Co	GD		Gresham		
51	Hartington Electric Co	GD	Hartington	Hartington	Hartington	
52	Harvard Electric Co	GD	Harvard	Harvard	Harvard	
53	Havelock Electric Light Co	D	Havelock	Havelock		
54	Hemingford Light & Power Co	GD		Hemingford	Hemingford	
55	Hill, W. H	GD	Overton	Overton	Overton	
56	Hoffman, J. C	GD	Butte	Butte	Butte	
57	Holdrege Lighting Co	GD	Holdrege	Holdrege	Holdrege	
58	Holmesville Mill & Power Co	GD	Holmesville	Holmesville	Holmesville	
59	Hooper Electric Light & Power System	GD	Hooper	Hooper	Hooper	
60	Huffman & Seymour Co	GD			Elgin	
61	Humboldt Electric Light Co	GD	Humboldt	Humboldt	Humboldt	
62	Humphrey Electric Light & Power Co	GD	Humphrey	Humphrey	Humphrey	
63	Hylton, W. N	GD	Gresham	Gresham	Gresham	
	Illinois Traction Co	H				
64	Omaha & Lincoln Ry. & Light Co	D	Ralston, Papillion, Louisville, and Gretna.	Omaha		
65	Intermountain Railway Light & Power Co	GD	Chadron	Chadron	Chadron	
66	Do	GD	Crawford and Fort Robinson.	Crawford	Crawford	
67	Indianola Electric Light Co	GD				
68	Jacobs, E	GD	Staplehurst	Staplehurst		
69	Johnson, M. M., Electric Light & Power Co	GD	Clay Center	Clay Center	Clay Center	
70	Kearney Water & Electric Power Co	GD	Kearney	Kearney	Kearney	
71	Krotter, F. C	GD	Palisades	Palisades	Palisades	
72	Kimball Electric Light & Power Co	GD				
73	Leedom-Coons & Leedom Electric Co	GD	Osmond	Osmond	Osmond	
74	Lexington Mill & Elevator Co	GD	Lexington	Lexington	Lexington	
75	Lincoln Traction Co	GTD	Lincoln, College View, University Place, Bethany.	Lincoln	Lincoln	
76	Lincoln Heat, Light & Power Co	D	Lincoln	do		
77	(?)	GD		Lodgepole		

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

NEBRASKA.

A.—PUBLIC UTILITY PLANTS.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
1			80	80		42				Mc.
2						150	$0.12–$1.42			C. Mc.
3	Private	140	75	80		125				C. Mc.
4					20	15				C.
5	Private		100	75		60	.15			C. Mc.
6	Do	160	75	100		125	.11– .07	$0.06 –$0.04		C. Mc.
7					15	75				Mc.
8	Private		250	240	50	150	.15	.08 – .05		Mc.
9							.14– .06			C.
10					45	27				Mc.
11		700	500	600		750				Mc.
12						40				C.
13	Private									C.
14			150	300		90				Mc.
15					90	60				Mc.
16		125			75	130				Mc.
17					175	175				Mc.
18						34				C.
19			300	250		250				Mc.
20			60	50		30				Mc.
21	Private		425	375		300				O.
22			650	400		275				M. Mc.
23			250	200		200				M. Mc.
24			500	770		620				M. Mc.
25									Red Oaks Electric Co. (Iowa).	M. Mc.
26			900	850		660				C. M. Mc.
27	Private		350	350		200	.12– .06	.06– .04		Mc.
28			115	100	100	160				Mc.
29			225	150		125				Mc.
30			70	70		50				Mc.
31	Private				75	55	.15	.10		C.
32					70	50				Mc.
33					70	35				Mc.
34						33				C.
35			2,055	2,000		975	.05– .50	.05– .02		C.
36			700	700		425				Mc.
37									Grand Island Electric Co.	Mc.
38						50				O.
39					40	20				Mc.
40					15	10				Mc.
41			250	122	42	115				Mc.
42			230	85		40				Mc.
43		240			135	175				C. Mc.
44	Private		200	300		225	.15– .08	.12– .03		C. Mc.
45					89	50				Mc.
46	Private	225				100	.10– .07			C. Mc.
47						60				C.
48		500	400	400		170	.10	.10– .01		C. Mc.
49			1,000	1,033		725				M. Mc. O.
50	Private			30			.15– .07			C.
51					50	60	.15– .10			C. Mc.
52	Private		125	125	50	155	.15– .06	.06		C. Mc.
53							.14– .10	.09		C. Mc.
54					25	16			Lincoln Gas & Electric Co.	C.
55	Private				30	30	.18			C. Mc.
56					65	75				Mc.
57			150	280		175				M. Mc.
58		500				350				Mc.
59			185	100		50				Mc.
60					60	40				C.
61			250	380		200				Mc.
62			90	75		30				Mc.
63			60	40		30				Mc.
64									Omaha Electric Light & Power Co.	M. Mc.
65			250	250		150				Mc.
66			350	300		180				Mc.
67					(10)	71				C.
68	Private	41			30	30	.15– .05			C. Mc.
69	Do		300	285		225	.08			C. Mc.
70		1,350	1,000	1,350		2,000	.10– .03	.064– .018		C. Mc.
71		188				100				Mc.
72					75	50				C.
73					34	30				Mc.
74			500	100		225				C. Mc.
75			3,734	5,100		3,575				C. Mc.
76										M.
77					25	15				C.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS PUBLIC UTILITY,

NEBRASKA—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
78	McCook Electric Co	GD	McCook	McCook	McCook	
	Middle West Utilities Co	H				
79	Nebraska City Utilities Co	GD	Nebraska City	Nebraska City	Nebraska City	
80	Miller, C., Electric Light & Power Co	GD	Osceola and Shelby	Osceola	Osceola	
81	Monroe Electric Light, Heat & Power Co	GD	Monroe	Monroe	Monroe	
82	Neligh Mills	GD	Neligh	Neligh	Neligh	
83	Nelson Light, Power & Heating Co	GD	Nelson	Nelson	Nelson	
84	Nemaha Valley Light & Heat & Power Co	GD	Stella and Shubert	Stella	Stella	
85	New Castle Electric Light Co	GD		New Castle		
86	Omaha Electric Light & Power Co	GD	Omaha and vicinity	Omaha	Omaha	
87	Omaha, Lincoln & Beatrice Ry. Co	D	Bethany	Bethany		
88	O'Neill Light & Power Co	GD	O'Neill	O'Neill	O'Neill	
89	Ord Electric Light Co	GD	Ord	Ord	Ord	
90	Orleans Electric Light & Power Co	GD	Orleans	Orleans	Orleans	
91	Pender Electric Light & Power Co	GD	Pender	Pender	Pender	
92	Peru Electric Light & Power Co	GD	Peru	Peru	Peru	
93	Pierce Milling Co	GD	Pierce	Pierce	Pierce	
94	Platte Electric Light & Power Co	D	Springfield	Springfield		
95	Ravenna Electric Light, Heat & Power Co	GD	Ravenna	Ravenna	Ravenna	
96	Roseland Electric Light & Power Co	GD	Roseland	Roseland	Roseland	
97	St. Edwards Electric Light Co	GD	St. Edwards	St. Edwards	St. Edwards	
98	St. Paul Electric Works	GD	St. Paul	St. Paul	St. Paul	
99	Sanberg, P. J	GD	Magnet	Magnet	Magnet	
100	Shelton Electric Light & Power Co	GD	Shelton	Shelton	Shelton	
101	Sidney Electric Service Co	GD	Sidney	Sidney	Sidney	
102	Skredla, J. & Sons	GD	Atkinson	Atkinson	Atkinson	
103	Southern Nebraska Power Co	GD	Superior	Superior	S. 36, T. 1, R. 7	Republican
104	Spalding Electric Light Co	GD	Spalding	Spalding		
105	Spencer Light & Power Co	GD	Spencer	Spencer	Spencer	
106	Stavo & Franklin Electric Co	GD	Linwood	Linwood	Linwood	
107	Stella Light, Heat & Power Co	D	Shubert	Shubert		
108	Stromsburg Electric Light, Heat & Power Co	GD	Stromsburg	Stromsburg	Stromsburg	
109	Sutton Electric Light & Power Co	GD	Sutton	Sutton	Sutton	
110	Table Rock Electric Co	D	Table Rock	Table Rock		
	Union Co. of Omaha	H				
111	Columbus Light, Heat & Power Co	GD	Columbus	Columbus	Columbus	
112	North Platte Light & Power Co	GD	North Platte	North Platte	North Platte	
113	Valparaiso Electric Co	D	Valparaiso	Valparaiso		
114	Van Ackron Electric Light Plant	GD				
115	Wauneta Electric Light & Power Co	GD	Wauneta	Wauneta	Wauneta	
116	Webster County Light & Power Co	GD	Blue Hill	Blue Hill	Blue Hill	
117	West Point Electric Light & Power Co	GD	West Point	West Point	West Point	
118	Winside Electric Light & Power Co	GD		Winside		
119	Winslow Electric Light Co	GD	Winslow	Winslow	Winslow	
120	Woods Brothers Electric Light Plant	GD	Spencer	Spencer	Spencer	

B.—MUNICIPAL PLANTS.

121		GD	Alliance	Alliance	Alliance	
122		GD	Alma	Alma	Alma	
123		GD		Ansley		
124		GD		Arapahoe		
125		GD		Ashton		
126		GD	Auburn	Auburn	Auburn	
127		GD		Bartley		
128		GD	Beatrice	Beatrice	Beatrice	
129		GD	Beaver City	Beaver City	Beaver City	
130		GD	Benedict	Benedict	Benedict	
131		D	Bethany	Bethany		
132		GD		Bladen		
133		GD	Bloomington	Bloomington	Bloomington	
134		GD		Bradshaw	S. 25, T. 41, R. 4	
135		D	Cedar Bluffs	Cedar Bluffs		
136		GD	Central City	Central City	S. 27, T. 13 N., R. 12 W.	Middle Loup
137		GD	Clarkson	Clarkson	Clarkson	
138		GD	Colon	Colon	Colon	
139		GD	Crab Orchard	Crab Orchard	Crab Orchard	
140		D	Crete	Crete		
141		GD	Crofton	Crofton	Crofton	
142		GD	Curtis	Curtis	Curtis	
143		GD	David City	David City	David City	
144		GD	Dodge	Dodge	Dodge	
145		GD	Edgar	Edgar	Edgar	
146		GD	Elwood	Elwood	Elwood	
147		GD	Fairbury	Fairbury	Fairbury	
148		D	Fairfield	Fairfield		
149		GD	Falls City	Falls City	Falls City	
150		GD	Farnam	Farnam	Farnam	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

NEBRASKA—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
78			550	365	60	350				M. Mc.
										Mc.
79			500	500		350				Mc.
80	Private		210	500		380	$0.15	$0.06		C. Mc.
81					40	19				Mc.
82	Private	400			225	250	$0.10- .08			C. Mc.
83	Do		70	60	30	75	.14- .09			C. Mc.
84			100	60		50	.12	.06		C. Mc.
85	Private		75	75		40	.18	.18		C.
86	Do		8,610	24,000		18,000	.08- .025	$0.07- .015		C. M. Mc.
87	Do						.12	.07	Lincoln Heat, Light & Power Co.	C. M. Mc.
88			175	125		125				C. Mc.
89			100	90		112				C. Mc.
90			100	125		75	.15- .09	.07- .045		C. Mc.
91	Private		50	80		27½	.15- .10			C.
92			65	60		50				C. Mc.
93		150			100	150				Mc.
94										Mc.
95	City		300	300		225	.15	.08- .03		C. Mc.
96					150	110				C. Mc.
97	Private	125		70		(100)	.15- .10	.06		C. Mc.
98			100	94		62½				Mc.
99					15	7½				Mc.
100						130				O.
101			205	220		130				C. Mc.
102	Private	70			80	50	.10	.05		C. Mc.
103		450	160	130		350				C. Mc.
104	Private	170			75	50	.16- .12			C.
105					60	30				Mc.
106					30	132				Mc.
107										Mc.
108			125	85		50	.12- .075	.06		C. Mc.
109			125	250		170				Mc.
110									Humboldt Electric Light Plant.	Mc.
										Mc.
111			1,100	1,000		795				M. Mc.
112			550	450		750				C. Mc.
113									D. M. Deane	Mc.
114		(75)				45				C.
115		65				50				Mc.
116			150	250		(150)				C.
117			150	190		110				C. Mc.
118					25	17½				C.
119	Private				16	(10)	.20			C.
120					50	35				Mc.
	Total, A	5,674	50,564	47,174	2,516	39,623				

B.—MUNICIPAL PLANTS.

121			340	535		375				C. Mc.
122					150	40				Mc.
123						36				C.
124	City				170	36				C.
125	Private				40	25	$0.20-$0.12	$0.10		C.
126			250	70		(100)				Mc.
127	Private				35	(25)	.15			C.
128			450	335		250				Mc.
129					(75)	50				C.
130			30	60		35				Mc.
131									Lincoln Traction Co	Mc.
132	Village				6		.15- .125	.08	Webster County Power & Light Co.	C.
133		(50)				30				C.
134					32	25				O.
135									Fremont County Electric Light & Power Co.	Mc.
136		(5,000)	250	(940)		3,700				C. Mc.
137			80	80		50				Mc.
138					25	(15)				Mc.
139					45	30	.15- .10			C. Mc.
140									Crete Milling Co	Mc.
141					50	30				Mc.
142					325	325				Mc.
143			150	150	150	225	.15- .08			Mc.
144					75	57				C. Mc.
145	City		100	60		50	.12- .09			Mc.
146					35	18				C. Mc.
147	City		500	250		375	.13- .045	$0.09- .02		Mc.
148							.09	.04		C.
149	City		400	350		340				C. Mc.
150					(30)	18				

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

NEBRASKA—Continued.

B.—MUNICIPAL PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
151		GD	Franklin	Franklin	Franklin	
152		GD	Fremont	Fremont	Fremont	
153		GD	Friend	Friend	Friend	
154		GD	Genoa	Genoa	Genoa	
155		GD	Giltner	Giltner	Giltner	
156		GD	Gordon	Gordon	Gordon	
157		GD	Grafton	Grafton	Grafton	
158		GD	Grand Island	Grand Island	Grand Island	
159		GD	Hampton	Hampton	Hampton	
160		GD	Hastings	Hastings	Hastings	
161		GD	Hebron	Hebron	Hebron	
162		GD	Howell	Howell	Howell	
163		GD	Kenesaw	Kenesaw	Kenesaw	
164		GD	Lincoln	Lincoln	Lincoln	
165		GD	Madison	Madison	Madison	
166		GD	Marquette	Marquette	Marquette	
167		D	Merna	Merna		
168		D	Milford	Milford		
169		GD	Minden	Minden	Minden	
170		GD	Morse Bluff	Morse Bluff	Morse Bluff	
171		GD	Pawnee City	Pawnee City	Pawnee City	
172		D	Pender	Pender		
173		GD	Plainview	Plainview	Plainview	
174		GD	Potter	Potter	Potter	
175		GD	Prague	Prague	Prague	
176		GD	Randolph	Randolph	Randolph	
177		GD	Red Cloud	Red Cloud	Red Cloud	
178		GD	Schuyler	Schuyler	Schuyler	
179		GD	Seward	Seward	Seward	
180		GD	Stanton	Stanton	Stanton	
181		GD	Stratton	Stratton	Stratton	
182		GD	Tecumseh	Tecumseh	Tecumseh	
183		GD	Tekamah	Tekamah	Tekamah	
184		D	University Place	University Place		
185		GD	Valley	Valley	Valley	
186		GD	Wahoo	Wahoo	Wahoo	
187		GD	Wayne	Wayne	Wayne	
188		GD	Weeping Water	Weeping Water	Weeping Water	
189		GD	Wilbur	Wilbur	Wilbur	
190		GD	Wisner	Wisner	Wisner	
191		GD	Wood River	Wood River	Wood River	
192		GD	Wymore	Wymore	Wymore	
193		GD	Wynot	Wynot		

C.—ALL OTHER PLANTS.

194	Long Pine Light & Power Co	G	Long Pine	Long Pine	Long Pine	
195	Nebraska Sanitarium Electric Light Co	G		Collegeview	S. 5, T. 9 N., R. 7 E.	
196	Omaha & Council Bluffs Street Ry	G	Electric railway	Omaha	Omaha	

NEVADA.

A.—PUBLIC UTILITY PLANTS.

1	Buckhorn Mines Co	GD	Beowawe	Beowawe	Beowawe	
2	Como Power & Telephone Co	GD	Las Vegas	Las Vegas	Las Vegas	
3	Deeth Mercantile Co	GD	Deeth	Deeth	Deeth	
4	Elko-Lamoille Power Co	GD	Elko and Lamoille	Elko	Elko	
5	Do	GD	do	Lamoille	S. 6, T. 32 N., R. 58 E.	Lamoille Creek
6	Ely Light & Power Co	GD	Ely, East Ely and Lane City	East Ely	East Ely	
7	Do		do	Ely	Ely	Murray Creek
8	Lovelocks & Woolsey Light & Power Co	GD	Lovelocks	Lovelocks		do
9	Southern Pacific Co	GD	Carlin	Carlin	Carlin	
	Stone and Webster	M				
10	Reno Power, Light & Water Co	GDT	Reno, Sparks, Virginia City	Washoe	S. 14, T. 19 N., R. 18 E.	Truckee River
11	Do		Carson City, Silver City	Reno	S. 10, T. 19 N., R. 19 E.	do
12	Truckee River General Electric Co	GDT	Floriston, Cal., and vicinity.	Fleish	S. 30, T. 19 N., R. 18 E.	do
13	Do			Verdi	S. 8, T. 19 N., R. 18 E.	do
14	United States Reclamation Service	GTD		Lahontan	S. 33, T. 19 N., R. 26 E.	Truckee and Carson Rivers.
15	Winnemucca Water & Light Co	GD	Winnemucca	Winnemucca	S. 33, T. 36 N., R. 38 E.	Whites Creek
16	Do		do	do	S. 19, T. 36 N., R. 38 E.	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

NEBRASKA—Continued.

B.—MUNICIPAL PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
151					75	50	$.15– .08			C. Mc.
152			750	1,500		1,000				Mc.
153			300	150		100				Mc.
154			150	150	50	75	.15			C. Mc.
155			80	70		60				Mc.
156			1,200	2,050		(1,200)	.05– .50			C.
157					30	17				Mc.
158			750	360		225				Mc.
159				100		80				Mc.
160			900	970		720	.065	$.045– .03		C. Mc.
161			250	190		150	.15	.09		C. Mc.
162	City		80	60		45	.12			C. Mc.
163	Do				75	50	.15			C.
164			750	1,050		1,500				Mc. O.
165			250	250		200	.10	.08		C. Mc.
166					25	17½				Mc. O.
167							.15	.15		C.
168							.15– .10		Blue River Power Co	C.
169			200	175		125				Mc.
170					25	17				Mc.
171			300	250		210	.12	.09		C. Mc.
172										Mc.
173			125	125	25	75				Mc.
174					(20)	15				C.
175	Private				21	12	.15	.15		C. Mc.
176					25	55				Mc.
177	City		300	275		200	.15– .05	.15– .07		C. Mc.
178			220	160		110	.12– .08	.07– .05		C. Mc.
179			300	300		250			Blue River Power Co	Mc.
180					50	145	.18	.18		C. Mc.
181					50	30				Mc.
182			275	250		190	.15– .08	.08– .04		C. Mc.
183			160	75		75				Mc.
184									Lincoln Traction Co	Mc.
185					(75)	50				C. Mc.
186			300	280		175				Mc.
187			250	225		150				C. Mc.
188	City				85	60	.12	.12		C. Mc.
189	Private		310	210		125	.12– .06	.06– .035		C. Mc.
190				125		100	.10	.055	Steam from Wisner Roller Mills	C. Mc.
191					50	30				Mc.
192			300	310		175				Mc.
193										Mc.
	Total, B	5,050	11,050	12,490	1,924	14,073				

C.—ALL OTHER PLANTS.

194		75				50				C.
195					40	25				C.
196	Private		32,000	23,775		15,850				C. M.
	Total, C	75	32,000	23,775	40	15,925				
	Grand total	10,799	73,614	83,439	4,480	69,621				

NEVADA.

A.—PUBLIC UTILITY PLANTS.

1	Private		550	550		550				C.
2					170	50				C.
3	Private				4	3	[1]$0.62			C.
4	Do				300	175	$0.15– .075	$0.075–$0.02		C. F. Mc.
5	Forest	415				250	.15– .075	.075– .02		C. Mc.
6	Private		1,075	1,300		1,000				C. M. Mc.
7	Do	160	425	100		200	.17– .125	.10 – .07		C. F. Mc.
8		150			120	225				Mc.
9	Private		200	50		25				C.
10		3,600				1,500				Mc. O.
11						700				Mc. O.
12		3,000				2,500	.07	.05		Mc. O.
13		3,200				2,400				Mc. O.
14	Public	2,490				1,875	.06	.06		C.
15		135				175	.15– .08			C. Mc.
16			320	600	150	450				C.
	Total, A	13,150	2,570	2,600	744	12,078				

[1] Lamp-month.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

NEVADA—Continued.

B.—MUNICIPAL PLANTS.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
17	Fallon Municipal System	D	Fallon			

C.—ALL OTHER PLANTS.

18	Tuscarora-Nevada Mines Co	G	Milling and mining	Jack Creek	S. 16 and 17, T. 42 N., R. 53 E.	Mill Creek
	Utah Copper Co	H				
19	Nevada Consolidated Copper Co	G	do	McGill	S. 21, T. 18 N., R. 64 E.	

NEW HAMPSHIRE.

A.—PUBLIC UTILITY PLANTS.

1	Allen, William F., Light Co	GD	Coos County, N. H., and Essex County, Vt.	Colebrook		
2	Do		do	West Stewartstown		
3	Alton Electric Light & Power Co	D	Alton and New Durham	Alton		
4	Amoskeag Manufacturing Co			Manchester		Merrimac River
5	Ashland Electric Light Co	GD	Ashland	Ashland	Ashland	Squam River
	Barstow, W. S., & Co. (Inc.)	M				
6	Claremont Power Co	GD	Claremont and vicinity	Claremont	Claremont	Sugar River
7	Berlin Street Railway Co	GD	Berlin	Gorham		
8	Bethlehem Electric Light Co	GD	Bethlehem and Whitefield	Bethlehem	Bethlehem	Ammonusuc River
9	Boston & Maine Railroad Co	GD	Concord	Franklin	Franklin	Pemigewasset River
10	Do	GD	do	West Concord	West Concord	
11	Portsmouth Electric Ry. Co			Nobles Island	Portsmouth	
12	Bristol Electric Light Co	GD	Grafton and Belknap Counties.	Bristol	Bristol	Newfound
13	Campton Electric Light Co	D	Campton	Campton		
14	Cloutman Gas & Electric Co	GD	Farmington	Farmington		
15	Contoocook Electric Light Co	GD	Merrimack County	Contoocook		Warner River
16	Derry Electric Co	GD	Derry	Derry	Derry	
17	Fessenden, O. D	GD	Brookline	South Brookline	South Brookline	
18	Franklin Light & Power Co	GD	Franklin	Franklin	Franklin	Winnepesaukee River and Salmon Brook.
19	Goodell's Co	GD	Antrim and Bennington	Antrim	Antrim	Contoocook River
20	Goodrich Falls Electric Co	GD	Carroll County	Intervale	Intervale	
21	Greenville Electric Lighting Co	GD	Greenville	Greenville	Greenville	
22	Groveton Electric Light Co	D	Coos County	Groveton		
23	Hadley, C. E	GD	Bradford and Piermont	Bradford		
24	Henry, J. E., & Sons Co	GD	Lincoln and North Woodstock.	Lincoln		Pemigewasset River
25	Hillsboro Electric Light & Power Co	GD	Hillsboro and Henniker	Hillsboro		
26	Jaffrey & Troy Electric Light Co	D	Jaffrey and Troy	Troy		
27	Jones & Linscott Electric Co	GD	Lancaster	Lancaster	Lancaster	Israel River
28	Keene Gas & Electric Co	GD	Cheshire County	Keene	Swanzey	Asmead River
29	Dublin Electric Co	GD	Dublin	Dublin		
30	Petersboro Electric Co	GD	Petersboro	Petersboro		
31	Laconia Gas & Electric Co	GD	Belknap County	Lakeport	Lakeport	Lake Winnepesaukee
32	Do	GD	do	Lochmere	Lochmere	Winnepesaukee River
33	Lancaster & Jefferson Electric Co	GD	Lancaster	Lancaster		
34	Lebanon Electric Light & Power Co	GD	Lebanon	Lebanon		
35	Lisbon Light & Power Co	GD	Bath	Bath		
36	Do	GD	Lisbon	Lisbon		
37	Manchester Traction, Light & Power Co	GTD	Hillsboro, Merrimack, Rockingham Counrties.	Manchester		Merrimac River
38	Nashua Light, Heat & Power Co	GD	Nashua and Hudson	Nashua	Nashua	
39	Marlboro Electric Light, Heat & Power Co	GD	Marlboro	Marlboro		
40	Mascoma Electric Light & Gas Co	GD	Grafton and Sullivan Counties and Vermont.	West Lebanon		
41	Meredith Electric Light Co	D		Meredith		
	Middle West Utilities Co	H				
42	Twin State Gas & Electric Co	GD	Coos, Cheshire and Strafford Counties.	Dover	Dover	
43	Do			Gorham		
44	Milford Light & Power Co	GD	Hillsboro County	Milford		
45	New Hampshire Water & Electric Light Co	D	Fitzwilliam and Richmond	Fitzwilliam		
	New Hampshire Electric Railways Co	H				
46	Rockingham County Electric Light & Power Co	GTD	Rockingham County	Portsmouth	Portsmouth	
47	New Hampton Electric Light & Power Co	D	New Hampton	New Hampton		
48	New Market Electric Co	GD	Rockingham and Strafford Counties.	New Market		
49	Newport Electric Light Co	GD	Newport and Sunapee	Newport	Newport	Sugar River
50	Sunapee Electric Light & Power Co	D	Sunapee	Sunapee		
51	Penacook Electric Light Co	GD	Concord and Merrimack Counties.	Penacook		
52	Pioneer Electric Co	GD	Sanbornville	Sanbornville	Sanbornville	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

NEVADA—Continued.

B.—MUNICIPAL PLANTS.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
17									United States Reclamation Service.	C. Mc.

C.—ALL OTHER PLANTS.

18	National forest	(170)				150				F.
19	Private		8,400	9,775		4,600				C.
	Total, C	170	8,400	9,775		4,750				
	Grand total	13,320	10,970	12,375	744	16,828				

NEW HAMPSHIRE.

A.—PUBLIC UTILITY PLANTS.

1		600				420				Mc. P.
2		500				420				Mc.
3									Cloutman Gas & Electric Co.	Mc.
4		22,445								O.
5	Private	90	133	90		75	$0.10	$0.08 -$0.03		Mc. C.
6		600	600	1,000	900	2,340	$0.11- .08	.08 - .015	Colonial Power & Light Co.	Mc. M. C.
7		300				300				Mc. M.
8	Private	450	250	450		225	.15- .10	.05		Mc. M. C.
9	Do	2,190				1,200				Mc. O. C.
10			405	450		525				Mc.
11			500	600		480				Mc.
12	Private	150			50	300	.12- .08	.06 - .04		Mc. C.
13										Mc.
14		114	200	400		75				Mc.
15	Private	200				135	.10- .06			Mc. C.
16			350	650		350				Mc.
17			(60)	70		60				Mc.
18	Private	800				540	.12- .08			Mc. M. C.
19	Do	1,000				660	.16- .08			Mc. C.
20		525				500				Mc.
21			100	60		(50)				Mc.
22									Lyman Falls Power Co.	Mc.
23		77	100	100		75				Mc.
24		1,800	2,400	2,800		2,300				Mc. O.
25		300				200	.15- .09	.075- .025		Mc. C.
26										Mc.
27	Private	150	100	100	50	140	.10	.05		Mc. C.
28	Do	450				730	.20- .08	.075- .0225	Connecticut River Power Co.	Mc. M. C
29		399				250				Mc. M.
30		165	125	85		115				Mc. M.
31	Private	400			450	525	.15- .08	.075- .015		Mc. C.
32	Do	1,360				800	.15- .08	.075- .015		Mc. C.
33		375	275	220		240	.10			Mc.
34		400	300	275		575				Mc.
35		470			200	400				Mc.
36										Mc. O.
37		5,900	5,900	4,000		11,030				
38			1,050	2,000		1,500			Manchester Traction, Light & Power Co.	Mc.
39		105				(60)			Keene Gas & Electric Co.	Mc.
40		550	300	500		600				Mc.
41									Laconia Gas & Electric Co.	Mc.
42			1,200	2,000		1,500				Mc. M.
43		1,600				1,500				Mc.
44		250	400	900		500				Mc.
45										M. Mc.
46			4,040	10,670		8,000			Bristol Electric Co.	Mc.
47										Mc.
48		250	275	225		252				Mc. C.
49		300	588	1,100		1,012	.15- .066 .25- .075	.10 - .02 .10 - .02	Newport Electric Light Co.	Mc. C.
50										Mc.
51		400	350	350		300				
52	Private				25	15	.20			C.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

NEW HAMPSHIRE—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
53	Pittsfield Light & Power Co.	GD	Pittsfield	Pittsfield	Pittsfield	
54	Plymouth Electric Light Co.	GD	Plymouth and Holderness	Plymouth	Plymouth	
55	Raymond Electric Co.	GD	Raymond	Raymond	Raymond	
56	Salem Light, Heat & Power Co.	GD	Rockingham County	Salem		
57	Spaulding & Frost Co.		Fremont	Fremont	Fremont	
	Tenney, C. H., & Co.	M				
58	Concord Electric Co.	GD	Concord	Concord		Merrimac River
59	Exeter, Hampton & Amesbury Street Ry. Co.	T		Exeter		
60	Exeter & Hampton Electric Co.	D	Rockingham County	do		
61	Tilton Electric Light & Power Co.	GD	Belknap and Rockingham Counties.	Tilton		
62	Tuftonboro Electric Light & Power Co.	D	Tuftonboro	Tuftonboro		
63	United Mica Co. Light Plant	GD	Grafton Center	Grafton Center		
64	Wentworth-Hall Electric Co.	GD	Jackson	Jackson		
65	Whitefield Electric Light Co.	D	Whitefield	Whitefield		
66	Wonalancet Electric Co.	D	Wonalancet and Tamworth	Wonalancet		
67	Woodville Aqueduct Corporation	GD	Woodville	Woodville		

B.—MUNICIPAL PLANTS.

68		GD	Littleton	Littleton		
69		GD	Wolfeboro	Wolfeboro	Wolfeboro	

C.—ALL OTHER PLANTS.

70	Berlin Mills Co.			Berlin		Androscoggin River
71	Do.			Shelbourne		do
72	Great Falls Manufacturing Co.			Somersworth		Salmon Falls River
73	International Paper Co.	G	Manufacturing	Glen	Berlin	Androscoggin River
74	Do.		do	Winnepesaukee	Franklin Falls	Winnepesaukee River
75	Nashua Manufacturing Co.			Nashua		Nashua River
76	Pacific Mills	G	Manufacturing	Dover	Dover	Cocheco River
77	Do.		do	do	do	
78	Suncook Mills			Suncook		Suncook River

NEW JERSEY.

A—PUBLIC UTILITY PLANTS.

	American Gas & Electric Co.	H				
1	Atlantic City Electric Co.	GD	Atlantic City and vicinity	Atlantic City	Atlantic City	
2	Ocean City Electric Light Co.	GD	Ocean City	Ocean City	Ocean City	
	American Light & Traction Co.	H				
3	Consolidated Gas Co. of New Jersey	GD	Long Branch and vicinity	Long Branch	Long Branch	
	American Railways Co.	H				
4	Bridgeton Electric Co.	GD	Bridgeton, Fairton, and vicinity.	Bridgeton	Bridgeton	
5	Atlantic Coast Electric Ry. Co.	HGT	Atlantic Coast Electric Light Co.	Allenhurst	Allenhurst	
6	Atlantic Coast Electric Light Co.	GD	Asbury Park and vicinity	Asbury Park		
7	New Jersey Water & Light Co.	GD	Deal	Deal	Deal	
8	Atlantic County Electric Co.	GD	Egg Harbor and Mays Landing.	Egg Harbor	Egg Harbor	
	Barstow, W. S., & Co. (Inc.)	M				
9	Eastern Pennsylvania Power Co. of New Jersey.	GD	Bernardsville	Bernardsville	Bernardsville	
10	Do.		Columbia, Phillipsburg, and Easton, Pa.	Columbia	Columbia	Paulins Kill
11	Do.		Dover	Dover	Dover	
12	Jersey Corporation (The)	GT		Boonton	Boonton	
13	Blairstown Electric Light Co.	GD	Blairstown	Blairstown		
	Boonton Electric Co.	D				
14	(Lessor, Public Service Co.)	L	Boonton and Mountain Lake	Boonton		
15	Branchville Electric Power, Water & Lighting Co.	D	Branchville	Branchville		
16	Butler Gas Lighting & Heating Co.	GD	Butler	Bloomingdale	Butler	
17	Cape May Light & Power Co. (The)	GD	Cape May and vicinity	Cape May	Cape May	
18	Clayton Development Co.	GD	Clayton	Clayton	Clayton	
19	Clementon Township United Electric Improvement Co.			Laurel Springs		
20	Commonwealth Water & Light Co.	GD	Lakewood	Lakewood		
21	Do.	GD	Summit and vicinity	Summit	Summit	
22	Electric Co. of New Jersey	GD	Pitman	Pitman	Pitman	
23	Do.	GD	Salem and vicinity	Salem	Salem	
24	Electric Light & Power Co.	GD	Hightstown	Hightstown	Hightstown	
25	Flemington Electric Light, Heat & Power Co.	GD	Flemington	Flemington	Flemington	
26	Hackettstown Electric Light Co.	GD	Hackettstown and vicinity	Hackettstown	Hackettstown	
27	Hammonton & Egg Harbor City Gas Co.	GD	Hammonton	Hammonton	Hammonton	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

NEW HAMPSHIRE—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
53			125	100		85				Mc.
54			150	300		110				Mc.
55			100	100		50				Mc.
56		65	300	375		255				Mc.
57						25				C.
58		2,000	1,200	1,000		3,000				Mc. M. O.
59									Rockingham County Light & Power Co.	Mc.
60									Exeter, Hampton & Ames Street Ry. Co.	Mc.
61		575	200	250		500	$0.12			M. Mc. C.
62										
63		100	100		20	75				Mc.
64		100	45			60				Mc.
65									Bethlehem Electric Light Co.	Mc.
66										Mc.
67		310	130	150		300				Mc.
	Total, A	48,815	22,351	31,370	1,695	45,734				

B.—MUNICIPAL PLANTS.

68		600	75			300				Mc.
69			160	545		400				Mc.
	Total, B	600	235	545		700				

C.—ALL OTHER PLANTS.

70		31,700								O.
71										O.
72		3,000								M. O.
73	Private	10,000	3,000	1,600		366				M. O. C.
74	Do	5,300	1,560	750		15			Franklin Electric Light & Power Co.	M. C.
75		4,500								M. O.
76		1,500				600				M. O. C.
77			6,500	5,060		2,500				C.
78		3,000								M. O.
	Total, C	59,000	11,060	7,410		3,481				
	Grand total	108,415	33,646	39,325	1,695	49,915				

NEW JERSEY.

A—PUBLIC UTILITY PLANTS.

1			(10,000)	16,700		10,000				M. Mc.
2			1,500	975		1,280				Mc.
3			1,900	3,200	750	3,250				M. Mc.
4			1,950	2,725		2,225				M. Mc.
5			1,662	4,600		3,300				Mc.
6									Atlantic Coast Electric Ry. Co.	Mc.
7			500	350		390				Mc.
8			225	135		108				Mc.
9			350	450		722				Mc.
10	Private	1,500				810				M.Mc. P.C.
11			600	700		500				
12			1,400	2,480		1,800				Mc.
13		250				(150)				Mc.
14									Morris & Somerset Electric Co.	Mc.
15		160				100				Mc. O.
16			115	215		(200)				Mc.
17			1,700	1,400		725				M. Mc.
18			300	240		(145)				Mc.
19										P.
20		100	(1,000)	1,200		1,010				M. Mc. P.
21			1,000	1,250		1,200				Mc.
22			350	(1,170)		700				M. Mc.
23			500	700		800				M. Mc.
24			125	125		140				Mc.
25			250	275		180				Mc.
26			300	375		240				Mc.
27			300	290		210				M. Mc.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

NEW JERSEY—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
28	Harrison Heights Improvement Co	GD	Mullica Hill	Mullica Hill	Mullica Hill	
29	Jamesburg Electric Co	GD	Jamesburg	Jamesburg	Jamesburg	
	Jersey Central Traction Co	H				
30	Middlesex & Monmouth Electric Light, Heat & Power Co.	GD	Keyport and vicinity	Keyport	Keyport	
31	Lambertville Heat, Light & Power Co	GD	Lambertville and New Hope, Pa.	Lambertville	Lambertville	
32	Milburn Electric Co	GD	Millburn and vicinity	Millburn	Millburn	
33	Millville Electric Light Co	GD	Millville	Millville	Millville	Maurice River
34	Monmouth Lighting Co	GD	Freehold, Englishtown, Marlboro.	Englishtown	Englishtown	
35	Moore Bros. Glass Co			Clayton		
	Morris & Somerset Electric Co	GD				
36	(Lessor, Public Service Co.)	L	Morristown and Morris Plains.	Morristown	Morristown	
37	New Egypt Light, Heat, Power & Water Co	GD	New Egypt	New Egypt	New Egypt	
38	New Jersey General Security Co	HGD		Little Falls		
39	Dundee Water Power & Land Co			Passaic		
40	Society for Establishing Useful Manufactures			Paterson		
41	Newton Gas & Electric Co	GD	Newton	Newton	Newton	
42	Ocean Grove Camp Meeting Association	GD	Ocean Grove	Ocean Grove	Ocean Grove	
43	Penns Grove Electric Light, Heat & Power Co	GD	Penns Grove and Pedricktown.	Penns Grove	Penns Grove	
	Pennsylvania R. R. Co	H				
44	West Jersey & Seashore R. R. Co	GT		Westville	Westville	
45	Pleasantville Heat, Light & Power Co	GD	Pleasantville and vicinity	Pleasantville	Pleasantville	
	Point Pleasant Traction Co	H				
46	Point Pleasant Electric Light & Power Co	D	Point Pleasant and vicinity.	Point Pleasant		
	Public Service Corporation of New Jersey	H				
47	Public Service Electric Co	GD	Burlington and Mount Holly	Burlington	Burlington	
48	Do	GD	Camden and vicinity	Camden	Camden	
49	Do	GD	Newark and vicinity	City Dock	Newark	
50	Do	GD	do	Coal Street	do	
51	Do	GD	Cranford and vicinity	Cranford	Cranford	
52	Do	GD	Elizabeth	Elizabeth	Elizabeth	
53	Do	GD	Gloucester	Gloucester	Gloucester	
54	Do	GD	Hoboken and vicinity	Hoboken	Hoboken	
55	Do	GD	Jersey City	Marlon	Jersey City	
56	Do	GD	Metuchen	Metuchen	Metuchen	
57	Do	GD	Milltown	Milltown	Milltown	
58	Do	GD	Paterson and vicinity	Paterson	Paterson	
59	Do	GD	Perth Amboy	Perth Amboy	Perth Amboy	
60	Do	GD	do	Plainsboro	Plainsboro	
61	Do	GD	Red Bank and vicinity	Red Bank	Red Bank	
62	Do	GD	do	Secaucus	Jersey City	
63	Public Service Electric Co	GD	Trenton and vicinity	Trenton	Trenton	
64	(Lessor, Bordentown Electric Co.)	L	Bordentown	Bordentown	Bordentown	
65	(Lessor, Cinnaminson Electric Light, Power & Heating Co.)	L	Riverside and vacinity	Riverside	Riverside	
66	Sayreville Electric Light & Power Co	GD	Sayreville and vicinity	Sayreville	Sayreville	
67	Sea Isle City Electric Light, Power & Water Co	GD	Sea Isle City and vicinity	Sea Isle City	Sea Isle City	
	South Jersey Realty Co.:					
68	Stone Harbor Electric Light & Power Co			Stone Harbor		
69	Taylor-Wharton Iron & Steel Co	HGT				Raritan River
70	Jersey Electric Co	D	Clinton	Clinton	Clinton	
71	Hunterdon Electric & Power Co	D	Hunterdon	High Bridge	Hunterdon	
72	Toms River & Island Heights Electric Light & Power Co.	GD	Toms River and vicinity	Toms River	Toms River	
73	Vulcan Electric Light, Heat & Power Co			Cape May Courthouse		
74	Warren Wood Working Co	GD	Belvidere	Belvidere		
75	Washington Electric Co	GD	Washington	Washington	Washington	
	Wildwood Electric & Traction Co	H				
76	West Jersey Electric Co	GD	Cape May County	Wildwood	Wildwood	
77	Williamstown Electric Co	GD	Williamstown	Williamstown	Williamstown	
78	Willsbrook Electric Light Co	GD	Netcong, Standhope, and Port Morris.	Netcong		Willsbrook
79	Woodbine Land & Improvement Co	GD	Woodbine	Woodbine	Woodbine	
80	Woodbourne Electric Light, Heat & Power Co	GD	Sussex	Sussex	Sussex	
81	Woodstown Ice & Cold Storage Co	GD	Woodstown and vicinity	Woodstown	Woodstown	

B.—MUNICIPAL PLANTS.

82		GD	Allentown	Allentown	Allentown	
83		D	Andover	Andover	Andover	
84		GD	Atlantic Highlands	Atlantic Highlands	Atlantic Highlands	
85		GD	Chatham	Chatham	Chatham	
86		GD	Frenchtown	Frenchtown	Frenchtown	
87		GD	Madison	Madison	Madison	
88		GD	Orange	Orange	Orange	
89		GD	Park Ridge	Park Ridge	Park Ridge	Pascock Brook
90		GD	Seaside Park	Seaside Park	Seaside Park	
91		GD	Vineland	Vineland	Vineland	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

NEW JERSEY—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
28	Private	45			30	30	$0.15	$0.08		Mc. P. C.
29			40		50	(30)				Mc.
30			(5,000)	6,400		5,000				M. Mc.
31			300	400		270	.15			M. Mc.
32			900	615		370				P. Mc.
33		150			175	380	.15	.15		Mc. P. C.
34			(500)	(830)		500				M. Mc.
35										P.
36			1,670	4,370		3,150				M. Mc.
37					80	54				Mc.
38		7,200								M. O.
39										M. O.
40						4,830				M. O.
41					550	375				Mc.
42			600	900		950				Mc.
43			200	170		125				Mc.
44			5,728	10,670		8,000				M. Mc.
45			400	800		450				Mc.
46									Lakewood Water, Light & Power Co.	M. Mc.
47			3,600	9,000		6,000				Mc. M.
48			6,600	14,200		8,400				Mc.
49			7,900	13,550		9,450				Mc.
50			6,750	(25,000)		14,875				Mc.
51			3,450	8,150		5,950				Mc.
52			1,800	2,300		1,575				Mc.
53			750	750		675				Mc.
54			4,160	7,700		2,250				Mc.
55			30,000	104,000		78,000				Mc.
56			3,600	4,900		3,000				Mc.
57			660	2,000		1,280				Mc.
58			6,000	13,180		9,600				Mc.
59			4,800	12,000		10,000				Mc.
60			750	900		800				Mc.
61			1,000	3,000		1,600				Mc.
62			3,230	5,000		2,825				Mc.
63			2,850	5,700		4,000				Mc.
64			500	700		615				Mc. M.
65			900	875		740				Mc. M.
66			1,200	2,500		1,200				Mc.
67			500	1,250		570				Mc.
68										Mc. M.
69									Taylor-Wharton Iron & Steel Co.	M. Mc.
70									do	M. Mc.
71										Mc.
72			450	250		150				P.
73										Mc. P.
74		80	200	335		210				M. Mc.
75			275	375		279	$0.1275–.05			M. Mc.
76			1,000	1,800		1,170				Mc.
77			(250)	(410)		250				Mc. P. C.
78		200			75	210	.12 – .04			Mc.
79			600	450		325				Mc. P.
80		150	180	300		(400)				Mc.
81			250	300		185				
	Total, A	9,835	135,570	305,585	1,710	221,283				

B.—MUNICIPAL PLANTS.

82					60	25				Mc.
83										Mc.
84			375	250		210			L. S. Mills	Mc.
85			300	280		225				Mc.
86			100	100		55				Mc.
87			750	715		500				Mc.
88			900	550		500				Mc.
89	Private	112			55	90	$0.15	$0.10–$0.05	Rockland Electric Co	Mc. C.
90			(60)	75		50				Mc.
91			400	800		600				Mc.
	Total, B	112	2,885	2,770	115	2,255				

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

NEW JERSEY—Continued.

C.—ALL OTHER PLANTS.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
	Atlantic City & Shore Co.	H.				
92	Atlantic & Surburban Ry. Co.	G.	Electric railways.	Pleasantville.	Pleasantville.	
93	Bucks County Interurban Ry. Co.	G.	Electric railway.	Newton.	Newton.	
94	Do.		do.	Yardley.	Yardley.	
95	Burlington County Transit Co.	G.	Electric railways.	Hainesport.	Hainesport.	
96	Cape May, Delaware Bay & Sewalls Point R. R. Co.	G.	Electric railway.	Cape May City.	Cape May.	
97	Millville Traction Co.	G.		Millville.		
98	Morris County Traction Co.	G.	Electric railway.	Chatham.	Chatham.	
99	Do.		do.	Dover.	Dover.	
100	New Jersey Rapid Transit Co.	G.	do.	Seal Isle City.	Sea Isle City.	
101	Ocean City Electric R. R. Co.	G.	do.	Ocean City.	Ocean City.	
102	Trenton & Mercer County Traction Corporation.	G.	do.	Trenton.	Trenton.	

NEW MEXICO.

A.—PUBLIC UTILITY PLANTS.

1	Alamogordo Electric Light & Power Co.	GD.	Alamogordo.	Alamogordo.	Alamogordo.	
2	Artesia Light & Power Co.	GD.	Artesia.	Artesia.		
3	Aztec Light & Power Co.	GD.	Aztec.	Aztec.	Aztec.	Las Animas River.
4	Ernestine Mining Co.	GD.		Mogallon.	Mogallon.	
5	Farmington Electric Light & Power Co.	GD.		Animas River.	Farmington.	Las Animas River.
	Federal Light & Traction Co.	H.				
6	Albuquerque Electric Power Co.	GT.	Albuquerque.	Albuquerque.	Albuquerque.	
7	Albuquerque Gas & Electric Light & Power Co.	D.	do.			
8	Deming Ice & Electric Co.	GD.	Deming.	Deming.	Deming.	
9	Las Vegas Light & Power Co.	GD.	Las Vegas.	Las Vegas.	Las Vegas.	
10	Las Cruces Electric Light & Ice Co.	GD.	Las Cruces and Mesilla.	Las Cruces.	Las Cruces.	
11	Lordsburg Power Co.	GD.	Lordsburg.	Lordsburg.	Lordsburg.	
12	Magdalena Ice, Light & Power Plant.	GD.	Magdalena.	Magdalena.	Magdalena.	
13	Moro Light & Power Co. (Inc.).	GD.	Cleveland.	Cleveland.		
14	Peoples Light & Power Co.	GD.	Gallup.	Gallup.	Gallup.	
15	Portales Irrigation Co.	GD.		Portales.	Portales.	
16	Public Utilities Co.	GD.	Carlsbad, Otis, and La Huerta.	Carlsbad.	Near Carlsbad.	Pecos River.
17	Raton Electric Light & Power Co.	GD.	Raton.	Raton.	Raton.	
18	Roswell Gas & Electric Co.	GD.	Roswell.	Roswell.	Roswell.	
19	Santa Fe Water & Electric Co.	GD.	Santa Fe.	Santa Fe.		
20	Silver City Power Co.	GD.	Silver City.	Silver City.	Silver City.	
21	Socorro Light & Power Co.	GD.	Socorro.	Socorro.	Socorro.	
22	Socorro Mining & Milling Co.	GD.		Mogallon.		
23	Southwestern Milling & Electric Co.	GD.	San Marcial, Midway, and Milligan.	San Marcial.	San Marcial.	
24	Springer Water & Electric Light Co.			Springer.		
25	Tucumcari Light & Power Co.	GD.	Tucumcari.	Tucumcari.	Tucumcari.	
26	U. S. Reclamation Service.	GD.		Elephant Butte.	S. 30, T. 13 S., R. 3 W.	

B.—MUNICIPAL PLANTS.

27		GD.	Clayton.	Clayton.		
28		GD.	Clovis.	Clovis.		
29		GD.	Portales.	Portales.		

C.—ALL OTHER PLANTS.

30	Tularosa Copper Co.		Concentrator.	Tularosa River.		Tularosa River.

NEW YORK.

A.—PUBLIC UTILITY PLANTS.

1	Adams Electric Light Co.	GD.	Adams and Adams Center.	Adams.	Adams.	
2	Adrian Knitting Co.	GD.	Sauquoit.	Sauquoit.		
3	Afton-Windsor Light, Heat & Power Co.	GD.	Center, Afton, and Windsor.	Center Village.	Center Village.	
4	Albany Southern R. R. Co.	GTD.	Columbia and Rensselaer Counties.	Stuyvesant Falls.	Stuyvesant Falls.	Kinderhook Creek.
	Aluminum Co. of America.	H.				
5	Massena Electric Light & Power Co.	D.	Massena.	Massena.		
6	St. Lawrence River Power Co.	GTD.	Massena Electric Light & Power Co.	do.		St. Lawrence River.

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

NEW JERSEY—Continued.

C.—ALL OTHER PLANTS.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower or gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
92			900	1,200		800				M. Mc.
93			600	(930)		560				M. Mc.
94			1,186	(3,000)		1,800				Mc.
95			750	800		600				M. Mc.
96			(600)	800		600				M. Mc.
97										M. Mc.
98			1,250	1,800		1,360				M. Mc.
99										
100			500	400		200				M. Mc.
101			1,100	1,025		262				Mc.
102			3,600	9,500		6,350				M. Mc.
	Total, C		10,486	19,455		12,532				
	Grand total	9,947	150,941	327,810	1,825	236,070				

NEW MEXICO.

A.—PUBLIC UTILITY PLANTS.

1			200	225		180				Mc. C.
2			100	65		50				Mc.
3		100	80	60		260				C. Mc. O.
4						300				C.
5						50				O. C.
6			1,576	2,608		1,725				C.
7									Albuquerque Electric Power Co.	M. Mc.
8	Private		975	1,150		1,062	$0.144–$0.10	$0.03 –$0.025		C. Mc.
9			700	1,400		925				Mc.
10	Private		280	185		150	.15	.08		C. Mc.
11	Do		300	250		250	.20 – .06	.06		C. Mc.
12			225	127		50				Mc.
13			70	45		15				Mc.
14	Private		250	350		175	.125– .05	.06 – .0375	Victor American Fuel Co.	C.
15						1,000				C.
16		350				150	.12 – .10	.05		C. M.
17	Private		450	425		350	.125– .05	.05 – .04		C. Mc.
18			600	1,650		1,350	.14 – .07	.035– .005		C. M. Mc.
19		102	450	445		575				Mc.
20			250	460		400	.15			C. M. Mc.
21			170	265		150				C. Mc.
22						960				C.
23	Private		125	100		50	.20			C. Mc.
24						25				O.
25			200	350		285				C. Mc.
26				2,500		1,875				C. O.
	Total, A	552	7,001	12,660		12,362				

B.—MUNICIPAL PLANTS.

27					180	150				Mc.
28			300	300		210				Mc.
29					205	125				Mc.
	Total, B		300	300	385	485				

C.—ALL OTHER PLANTS.

30			196							O.
	Total, C		196							
	Grand total	552	7,497	12,960	385	12,847				

NEW YORK.

A.—PUBLIC UTILITY PLANTS.

1		125	200	150		100			Northern New York Utilities Co.	Mc.
2		125				35				Mc.
3		400	300	300		400				Mc.
4		5,500	2,550	4,750		4,800				Mc. M. C.
5									St. Lawrence River Power Co.	Mc. M.
6		40,000				(24,000)				Mc. M. O.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

NEW YORK—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
	American Gas Co	H				
7	Kingston Gas & Electric Co	GD	Kingston, Esopus, and Hurley.	Kingston	Kingston	
8	Ulster Electric Light, Heat & Power Co	GD	Ulster and Saugerties	Saugerties	Saugerties	
	American Waterworks & Electric Co	H				
9	Wellsville Electric Light, Heat & Power Co	GD	Wellsville	Wellsville	Wellsville	
10	Antwerp Light & Power Co	GD	Antwerp	Antwerp		
11	Ardsley Electric Co	G		Ardsley-on-Hudson	Ardsley-on-Hudson	
12	Ausable Valley Light, Heat & Power Co	GD	Keene	Keene		
	Barstow, W. S., & Co	M				
13	Binghamton Light, Heat & Power Co	GD	Binghamton, Lestershire, and vicinity.	Binghamton	Binghamton	
14	Sayre Electric Co	GD	Sayre, Athens, and vicinity	Sayre	Sayre	
15	Bath Electric & Gas Light Co	GD	Bath	Bath	Bath	Cohnocton River
16	Berlin Electric Light, Heat & Power Co	GD	Berlin and Petersburg	Berlin	Berlin	Lake Kendall and Hammond Swamp.
17	Bouquet Electric Power Co	GD	Essex and Kilisboro	Essex		
18	Brasher Falls Electric Light Plant	GD	Brasher Falls and Winthrop.	Brasher Falls		
19	Cattaraugus Electric Light & Power Co	GD	Cattaraugus	Cattaraugus	Cattaraugus	Cattaraugus Creek
20	Cayadutta Generating Co	GD	Fonda and Fulton	Fonda	Berryville	Cayadutta Creek
21	Cazenovia Electric Co	GD	Cazenovia	Cazenovia	Cazenovia	Chattenango Creek
22	Champlain Electric Co	GD	Champlain	Champlain		Big Chazy River
23	Chasm Power Co	GD	Allegany, Franklin, and Madison Counties.	Chateaugay	Chateaugay	Chateaugay River
24	Chatham Electric Light, Heat & Power Co	GD	Columbia County	Chatham	Chatham	Steinkill Creek
25	Cohoes Co	GD	Cohoes	Cohoes	Cohoes	Mohawk Creek
	Cohoes Gas Light Co	H				
26	Cohoes Electric Light Co	GD	Cohoes, Northside, and Colony.	do	do	Mohawk River
27	Consolidated Electric Co	GD	Washington County	Middle Falls		
	Consolidated Gas Co. of New York	H				
28	New York Edison Co., The	GTD	New York	New York	New York	
29	New York & Queens Electric Light & Power Co.	GD	Queens and vicinity	Queens	Queens	
30	Northern Westchester Lighting Co	GD	Ossining and vicinity	Ossining	Ossining	
31	Third Avenue Ry. Co	GTD	New York	New York	New York	
32	United Electric Light & Power Co	GD	do	do	do	
33	Westchester Lighting Co	GD	Mount Vernon, New Rochelle, Port Chester, White Plains, Tarrytown, and Mount Kisco districts.	Mount Kisco		
34	Do		do	New Rochelle		
35	Do		do	Tarrytown		
36	Deer River Power Co	GD	Carthage and Copenhagen	Copenhagen	Copenhagen	Deer River
37	Delaware & Otsego Light & Power Co	GD	Franklin and Otsego	Franklin	Sidney	Ouleant Creek
38	Deposit Electric Co	GD	Broome and Delaware Counties.	Deposit		
39	East Aurora Electric Light Co	GD	East Aurora and Wales Center.	East Aurora	East Aurora	Cazenovia Creek
40	East Creek Electric Light & Power Co	GTD	Montgomery and Herkimer Counties.	East Creek	East Creek	East Canada Creek
41	Do			Inghams Mills	Inghams Mills	do
42	Eaton-Morrisville Power Co	GD	Eaton	Eaton		
43	Do		Morrisville	Morrisville		
44	Elizabethtown Electric Light Plant	GD	Elizabethtown	Elizabethtown		
	Empire Coke Co	H				
45	Central New York Gas & Electric Co	GD	Geneva, Phelps, Waterloo, Newark, Palmyra, Clyde, Lyons, Seneca Falls, and vicinity.	Geneva	Geneva	
46	Do		do	Lyons		
47	Do		do	Newark	Newark	
48	Empire Gas & Electric Co	GD	Auburn	Auburn	Auburn	
49	Farley, Geo., Light Plant	GD	Forestport	Forestport		Black River
50	Fort Covington Light, Heat & Power Co	GD	Fort Covington	Fort Covington	Fort Covington	Salmon
51	Fulton Light, Heat & Power Co	GD	Fulton, Volney, and Granby	Fulton	Fulton	
52	Genesee Valley Power Co	GD	Wyoming and Allegany Counties.	Mills Mills	Fillmore	Wiscoy Creek
	General Electric Co	H				
53	Hoosac River Electric Light & Power Co	D	Schenectady	Schenectady		
54	Schenectady Power Co	GTD	Schaghticoke, Valley Falls, and Jacksonville, N. Y.	Johnsonville	Schaghticoke	Hoosick River
55	Do		do	Schaghticoke	do	do
56	Gibson, G. N., & Sons	GD	West Stockholm	West Stockholm	West Stockholm	St. Regis River
57	Gould, G. H. P	D	Lyon Falls and Turin	Lyons Falls	Lyons Falls	Black River
58	Great Bear Light & Power Co	GD	Otsego and Schoharie Counties.	East Worcester	East Worcester	Oak Creek
59	Gowanda Light & Power Co	GD	Gowanda	Gowanda		
60	Hamblin, E. S., & Co	GD	Oriskany Falls	Oriskany Falls	Oriskany Falls	Oriskany Creek.
61	Hanford Bros	GD	East Meredith	East Meredith	East Meredith	Kartright Creek
62	Hannawa Falls Water Power Co	GTD	St. Lawrence Co	Hannawa Falls		Racquette River
63	Henderson Electric Light & Power Co	GD	Henderson and Henderson Harbor.	Henderson		
64	Holmes Milling Co	GD	Downsville	Downsville		
65	Honk Falls Power Co	GTD	High Falls	Ellenville		Rondont Creek

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

NEW YORK—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
7			650	700		500			Honk Falls Power Co.	Mc.
8			250	275		190				Mc.
9			300	360	150	280				Mc.
10		200				150				Mc. M.
11							$0.18 -$0.10		Westchester Lighting Co.	Mc. M. C.
12		150				120				Mc.
13			1,500	5,000		3,500				Mc.
14			900	2,700		1,160				Mc.
15	Private	100	200	250		195	.18 - .12	$0.10 -$0.035		Mc. M. C.
16	Do	150				75	.15	.045- .02		Mc. C.
17		140				100				Mc.
18		200				30				Mc.
19	Private	100			60	75	.07	.07		Mc. C.
20	Do	190	100	125		100	.10 - .04	.10 - .015	Fulton County Gas & Electric Co.	Mc. C.
21	Do	94	210	265		232½	.12 - .05	.05		Mc. C.
22	Do	100			60	75	.10			Mc. C.
23	Do	1,200				783	.10			Mc. C.
24	Do	160	400	545		420	.15 - .075	.08 - .02		Mc. M. C.
25		30,000				27,000				O. C.
26	Private	1,500				1,500	.075- .045	.01		Mc. C.
27		1,500				1,000				Mc. M.
28			122,822	347,650		268,000				Mc. M.
29			5,000	10,750		7,500				Mc.
30			1,450	2,000		1,500				Mc.
31			15,000	50,000		32,000				Mc.
32			20,800	60,000		45,000				Mc.
33			4,532	11,495		9,435				Mc.
34										Mc.
35										
36	Private	1,050				825	.12 - .02			Mc. C.
37	Do	500				75	.15 - .06	.15 - .06		Mc. C.
38		450	225	385		450	.15 - .06	.08 - .02		Mc. M.
39	Private	150	230	160		225	.11 - .05	.08 - .03		Mc. C.
40	Do	2,000				950	.08 - .02	.05 - .01	Fonda, Johnstown & Gloversville R. R. Co.	Mc. M.O.C.
41	Do	8,000				5,000	.08 - .02	.05 - .01	Utica Gas & Electric Co.	Mc. M. C.
42		350	100	100		150				Mc.
43										Mc.
44		100				60				Mc.
45			1,500	2,000		1,500				Mc.
46		150	500	800		350			Niagara, Lockport & Ontario Power Co.	Mc. M.
47			600	800		560				Mc.
48			2,000	2,830		2,000			Niagara, Lockport & Ontario Power Co.	Mc.
49	Private	40			30	17½	.10			Mc. C.
50		400				85				Mc. C.
51		1,100	(1,500)	1,667		2,270				Mc.
52		200				300	.09	.05 - .03		Mc. C.
53										Mc. M.
54		6,000				3,600	.12	.05 - .01		Mc. M.O.C.
55		25,000				12,000	.12	.05 - .01		Mc. M. C.
56		25				(15)				Mc. C.
57							.08	.08	Gould Paper Co.	Mc. C.
58	Private	150	160	150		190	.15 - .10			Mc. C.
59		225			145	132½				Mc.
60	Private	90			65	55	.10			Mc. C.
61	Do	10			8	8				C.
62		4,250				3,000				Mc. O.
63		178				50				Mc.
64	Private	34			30	33	.10			Mc. C.
65		3,600				2,100				Mc. O.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY, NEW YORK—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
66	Hydraulic Power Co. of Niagara Falls	HGTD	Aluminum Co. of America	Niagara Falls, No. 2	Niagara Falls	Niagara River
67	Do		Niagara Falls	Niagara Falls, No. 3	do	do
68	Cliff Electric Distributing Co	D	do			
69	Hydro-Electric Power Co	GD	Theresa	Theresa	Theresa	Indian River
70	Jordan Electric Light & Power Co	GD	Jordan and Elbridge	Jordan		
71	Juengst, Geo., & Sons	GD	Westchester and Putnam Counties.	Croton Falls	North Salem	East Branch Croton River.
	Kings Co. Electric Light & Power Co	H				
72	Edison Electric Illuminating Co. of Brooklyn	GD	Brooklyn	East River	Brooklyn	
73	Do	GD	do	Sixty-sixth Street	Bay Ridge	
74	Amsterdam Light, Heat & Power Co	D				
75	Le Roy Hydraulic Electric Gas Co	GD	Le Roy and vicinity	Le Roy, No. 1	Le Roy	Oatka River
76	Livingston Manor Electric Co	GD	Sullivan County	Livingston Manor		
77	Long Island Lighting Co	GD	Amityville, Brentwood	Amityville	Amityville	
78	Do	GD	Islip, Centerport, Northport, Sayville, Bayport, and vicinity.	Islip	Islip	
79	Do	GD	do	Northport	Northport	
80	Do	GD	do	Sayville	Sayville	
81	Madrid Electric Light Plant	GD	Madrid	Madrid		
82	Malone Light & Power Co	GD	Franklin County	Chasm Falls	Malone	Solomon River
83	Do	GD	do	Malone, No. 1	do	do
84	Do	GD	do	Malone, No. 2	do	do
85	Do	GD	do	Malone, No. 3	do	do
86	Do	GD	do	Malone, No. 4	do	do
87	Mechanicsville Electric Light & Gas Co	GD		Mechanicsville		
88	Middleville Electric Light Co	GD	Middleville	Middleville	Newport	West Canada Creek
	Middle West Utilities Co	H				
89	Twin State Gas & Electric Co	GD	Rensselaer County	Hoosick Falls	Hoosick	Hoosick River
90	Mohawk Hydro-Electric Co	GD	Ephratah	Ephratah		Gacoga Creek
91	Moravia Electric Light, Heat & Power Co	GD	Moravia	Moravia	Moravia	Dutch Creek
92	Mount Norris Illuminating Co	GD	Mount Norris	Mount Norris	Mount Norris	
93	Nelson, F. L	GD	Deansboro	Deansboro	Deansboro	Oriskany Creek
94	New Berlin Light & Power Co	GD	New Berlin	New Berlin	New Berlin	
95	Newfane Electric Co	GD	Newfane, Burt, and Olcott	Newfane		
96	Newport Electric Light & Power Co	GD	Newport	Newport	Newport	West Canada Creek
	New York Central & Hudson River R. R. Co	H				
97	Despatch Heat, Light & Power Co	D	East Rochester, Victor, Rochester.			
98	Eastern Monroe Electric Light & Gas Co	D	Manchester, Shortsville	Rochester		
99	Ontario Light & Traction Co	GTD	Penfield, Pittsford, Brighton	Littleville	Hopewell	Canandaigua
100	Rochester Railway & Light Co	GTD	Canandaigua, Chapin, and Sales.	Rochester	Rochester	Genesee River
101	New York & Ontario Power Co	GTD	Waddington	Waddington	Waddington	
102	Niagara Falls Power Co., The	HGTD	Niagara Falls, Buffalo, La Salle.	Niagara Falls	Niagara Falls	Niagara River
103	Tonawanda Power Co	D	Tonawanda			
	Niagara, Lockport & Ontario Power Co	GTD				
104	(Lessor, Salmon River Power Co.)	L	Buffalo	Orwell	Orwell	Salmon River
105	Niven, T. H	GD	Treadwell	Treadwell		
106	North Creek Electric Co	GD	North Creek	North Creek		
107	Northern Adirondack Power Co	GD	Keeseville, Peru, Ausable Chasm, and Port Kent.	Ausable Chasm	Ausable Chasm	
108	Do	GD	do	Keeseville	Keeseville	
109	Northern New York Utilities (Inc.)	GD	Watertown, Carthage, Dexter, Brownville, Sacketts Harbor, Glen Park, Great Bend, Evans Mills, and Natural Bridge.	Black River		
110	Do	GD	do	Dexter		
111	Do	GD	do	Effley Falls		
112	Do	GD	do	South Edwards		
113	Do	GD	do	Taylorville		
114	Do	GD	do	Watertown		
115	Norwood Electric Light & Power Co	GD	Norwood and Norfolk	Norwood	Yaleville	Racquette River
116	Oneonta Light & Power Co	GD	Oneonta	Oneonta		Susquehanna River
117	Orcutt, B. L., & Sons (Inc.)	GD	Dickenson Center	Dickenson Center		
118	Oswegatchie Hydraulic Power Co	G	South Edwards	South Edwards	South Edwards	Oswegatchie River
119	Oswegatchie Light & Power Co	GD	Gouverneur and Hailesboro	Gouverneur		
120	Otsego & Herkimer R. R. Co	GD	Milford, Hartwick and vicinity.	Colliersville	Milford	Susquehanna River
121	Ovid Electric Co	GD	Ovid, Interlaken, and Sheldrake.	Ovid		
122	Owego Light & Power Co	GD	Owego	Owego	Owego	Owego Creek
123	Panama Power Co	GD	Panama	Panama		
124	Paul Smiths Electric Light & Power & Railroad Co.	GTD	Saranac Lake, Lake Clear, Bloomingdale, Gabriels, Rainbow, and Paul Smiths.	Franklin Falls		
125	Do	GTD	do	Saranac Lake		
126	Do	GTD	do	Union Falls		
127	Phillips, W. J	GD	Manlius and Chittenango	Manlius		Limestone Creek
128	Phoenix Fuel, Light & Water Co	GTD		Phoenix		
129	Piser, L. C., & Sons	GD	Shushan	Shushan		Battenkill
130	Plattsburg Gas & Electric Co	GD	Plattsburg	Indian Rapids	Plattsburg	Saranac River
131	Do			Plattsburg	do	do

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

NEW YORK—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
66	Private	23,600				(14,100)	(1)			M. O. C.
67	Do	130,000				89,400	(1)			Mc. C.
68									Hydraulic Power Co.	Mc.
69		1,800				1,240				Mc. C.
70		150	250	60		120				Mc.
71	Private	835			150	535	$0.10–$0.05	$0.10–$0.015		Mc. C.
72		35,300	74,670			55,550				Mc.
73										Mc.
74										
75	Private	410	850	635		1,213	.11– .02	.08– .02		Mc. M. C
76		130	180	120		65				Mc.
77			300	350		347				Mc.
78					100	(60)				Mc.
79			900	2,630		1,905				Mc.
80			210	350		360				Mc.
81		75	125	50		60				Mc.
82	Private	3,000				2,500	.10		Chasm Power Co.	Mc. C.
83	Do	685				425	.10			Mc. C.
84	Do	800				450	.10			Mc. C.
85	Do		250	250		180	.10			Mc. C.
86	Do	175				75	.10			Mc. C.
87		200	300	225		350				Mc.
88	Private	120			40	50	.10			Mc. C.
89	Do	720	500	350		550	.14– .07	.06– .02		Mc. M. C.
90		6,000				3,750				Mc. M.
91	Private	200	125	125		240	.125			Mc. C.
92		150				120				Mc.
93	Do	50				42	.10	.10		Mc. C.
94		80	110	100		120				Mc.
95		130	350	420		350				Mc.
96	Private	225				150	.15	.045		Mc. C.
97	Do						.10– .005	.10– .005	New York State Railways	Mc. M. C.
98	Do						.08	.005	Rochester Railway & Light Co.	Mc. M. C.
99		325				185				C.
100	Private	22,000	18,000	44,000		43,950	.08– .004	.08– .004	Niagara, Lockport, & Ontario Power Co.	Mc. M. O. C.
101		50				32				
102		115,000				86,000			Canadian Niagara Power Co.	Mc. C. O.
103									Niagara Falls Power Co.	Mc. C.
104		40,000				31,680				
105		26				(15)				Mc.
106		300				200				Mc. M.
107		500				400				Mc.
108										Mc.
109										Mc.
110										Mc.
111										Mc.
112		12,160	1,300	2,300		10,180				Mc.
113										Mc.
114										Mc.
115	Private	400	300	300		420	.19– .05	.07– .03		Mc. C.
116	Do	500	300	550		435	.10– .06			Mc. M. C.
117		75				30				Mc.
118	Private	3,400				1,250				Mc. O. C.
119		800				420			Hannawa Falls Water Power Co.	Mc.
120	Private	4,000				2,540		0.02		Mc. M. C.
121		200	250	250	100	450				Mc.
122	Private	200	400	925		725	.15– .05	0.05– .02		Mc. C.
123		90	80	30		30				Mc.
124		4,500			100	3,000				Mc. M.
125										Mc. M.
126										
127	Private	216				115			Niagara Falls Power Co.	Mc. C.
128										Mc.
129	Private	60				33	.10– .04			Mc. C.
130	Do	1,248				600	.10– .02			Mc. M. C.
131	Do	615	719	615		1,120	.10– .02			M. C.

[1] Owned by customers.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

NEW YORK—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
132	Port Henry Light, Heat & Power Co	GD	Essex County	Port Henry	Port Henry	Mill Brook
133	Port Leyden Electric Light & Power Co	GD	Port Leyden	Port Leyden		
134	Potsdam Electric Light & Power Co	GD		Potsdam		
135	Rensselaer Falls Electric Light & Power Co	GD	Rensselaer Falls and De Kalb Junction.	Rensselaer Falls		Oswegatchie River
136	Riverhead Electric Light Co	GD	Riverhead	Riverhead	Riverhead	Peconic River
	St. Lawrence Gas, Electric & Transportation Co	H				
137	Ogdensburg Power & Light Co	GD	Ogdensburg	Ogdensburg	Ogdensburg	Oswegatchie River
138	St. Regis Light & Power Co	GD	St. Regis Falls	St. Regis Falls	St. Regis Falls	St. Regis River
139	Salem Light, Heat & Power Co	GD	Salem	Salem		Battenkill River
140	Seneca River Power Co	GD	Baldwinsville and Phoenix	Baldwinsville	Baldwinsville	
141	Sherman, A., Lumber Co	GD	Parishville	Parishville		
142	Solsville Electric Light & Power Plant	GD	Solsville, Madison, and Bouchville.	Solsville	Solsville	Oriskany Creek
143	Southern Dutchess Gas & Electric Co	GD	Beacon & Glenham	Beacon		
144	Standard Light, Heat & Power Co	GD	Unadilla, Sidney, and Bainbridge.	Sidney		Susquehanna River
	Stone & Webster Management Association	M				
145	Adirondack Electric Power Corporation	GTD	Albany, Montgomery, Warren, Saratoga, Madison, and Oneida Counties.	Mechanicsville	Mechanicsville	Hudson River
146	Do	GTD	do	Schoharie Falls		Schoharie Creek
147	Do	GTD	do	Spier Falls	Spier Falls	Hudson River
148	Do	GTD	do	Utica	Utica	
149	Swett, A. L., Light & Power Co	GD	Medina, Yates, Knowlesville, Eagle Harbor, Clarkson, and vicinity.	Medina		Eighteen Mile Creek
150	Do	GD	do	Waterport		
	Taylor Chemical Co	H				
151	Yates Electric Light & Power Co	GD	Penn Yan and Milo	Penn Yan	Milo	
	Tenney, C. H., & Co	M				
152	Peoples Gas & Electric Co	GD	Oswego and Minetto	Oswego		
153	Rockland Light & Power Co	GD	Hillburn, Nyack, Piermont, Tappan, Orangeburg and vicinity.	Hillburn	Hillburn	
154	Do	GD	do	Orangeburg	Orangeburg	
155	Tuxedo Electric Light Co	GD	Tuxedo Park	Tuxedo Park		
156	Tyler Light & Power Co	GD	Vernon	Vernon		
157	Union Electric Co	GD	Whitney Point	Whitney Point	Whitney Point	Otselic River
	United Gas & Electric Corporation of Connecticut.	H				
158	Elmira Water, Light & Railroad Co	GTD	Elmira and vicinity	Elmira	Elmira	
159	Lockport Light, Heat & Power Co	GD	Lockport	Lockport	Lockport	Barge Canal
	United Gas Improvement Co	H				
160	Fulton County Gas & Electric Co	GD	Johnstown and Gloversville.	Gloversville	Gloversville	
161	Do	GD	do	do	Johnstown	Cayadutta Creek
162	Syracuse Lighting Co	GD	Syracuse and vicinity	Syracuse	Syracuse	
163	Upper Hudson Electric & Railroad Co	GTD	Catskill, Athens and vicinity.	Catskill	Catskill	Schoharie Creek
164	Utica Gas & Electric Co	GD	Dolgeville, Rome, Frankport, Whitesboro, Yorkville, New Hartford, Deerfield and vicinity.	Dolgeville		East Canada Creek
165	Do	GD	do	Little Falls		Mohawk River
166	Do	GD	do	Trenton Falls		West Canada Creek
167	Consolidated Light & Power Co	D	Whitehall	Whitehall		
168	Glens Falls Gas & Electric Co	GD	Glens Falls	Glens Falls	Glens Falls	
169	Wadhams & Westport Electric Light & Power Co.	GD	Wadhams, Westport, and Mineville.	Wadham, No. 1		Boquet River
170	Do	GD	Mineville	Wadham, No. 2		Black River
171	Warren Curtis Manufacturing Co	GD	Corinth, Lucerne, and Palmer Falls.	Curtis Mill	Corinth	Hudson River
172	Warrensburgh Electric Light Works	GD	Warrensburg	Warrensburg	Warrensburg	Schroon River
173	West Branch Light & Power Co	GD	Stamford, Hobart and vicinity.	South Kortright	Stamford	Roses Brook
174	Wetmore Electric Co	GD	Lowville, Croghan and vicinity.	Lowville		
	White, J. G., & Co. (Inc.)	H				
175	Ithaca Electric Light & Power Co	GD	Ithaca	Ithaca	Ithaca	
176	Norwich Gas & Electric Co	GD	Norwich	Norwich	Norwich	
177	Do	GD	Oxford	Oxford		
178	Worcester Electric Light Plant	GD	Worcester	Worcester	Worcester	
179 318	140 additional fuel power plants					

B.—MUNICIPAL PLANTS.

319		GD	Boonville	Boonville	Boonville	Black River
320		GD	Lake Placid	Lake Placid	Lake Placid	Chubb River
321		GD	Philadelphia	Philadelphia		
322		GD	Potsdam	Potsdam	Potsdam	Racquette River
323		GD	Springville and New Ashford	Springville		
324		GD	Theresa	Theresa		
325 365	41 additional fuel power plants					

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

NEW YORK—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
132	Private	200	150	150		150	$0.15	$0.065–$0.0225		Mc. C.
133		230				105				Mc.
134		3,000				1,000				Mc.
135	Private	125				100	.10			Mc. C.
136	Do	100	450	425		335	.15	.10 – .05		Mc. C.
137		400	1,000	500		550	$0.112– .075	.053– .013		Mc. M. C.
138	Private	320				225				Mc. M. C.
139	Do	332				150	.15 – .10	.04 – .02		Mc. C.
140		150				420				Mc. M.
141		60				35				Mc. O.
142	Private	90			60	75	.10	.05		Mc. C.
143		400	800	800		1,200				Mc. M.
144	Private	429	600	800		700				Mc. M. C.
145	Do	7,300	1,000	1,000		5,250	.10 – .05	.08 – .0067	Delaware & Hudson R. R. Co.	Mc. O. C.
146	Do	2,000				1,300	.10 – .05	.08 – .0067	Municipal Gas Co	Mc. O. C.
147	Do	36,500				16,500	.10 – .05	.08 – .0067	Troy Gas Co	Mc. O. C.
148	Do		6,000	8,000		6,000	.12 – .05	.08 – .008		C.
149		3,050	300	250		2,350			Niagara, Lockport & Ontario Power Co.	Mc. M. O.
150										Mc.
151	Private	530	400	350		450				Mc. M. C.
152		1,085	1,400	1,870		2,100	.10 – .07			Mc. M.
153			1,250	670	1,975	2,000				Mc.
154			3,050	5,300	1,355	4,550				Mc.
155		100	450	450		375				Mc.
156		(20)				11				Mc.
157	Private	60				25	.10			Mc. C.
158			7,714	17,000		12,700				Mc.
159		500	1,530	1,440		1,563	.075– .045	.02 – .006	Niagara, Lockport & Ontario Power Co.	Mc. M. C.
160			1,509	2,350		1,683				Mc.
161	Private	350				500	.09 – .04	.09 – .015	Mohawk Hydro-Electric Co	Mc. C.
162			7,000	13,370		11,650				Mc.
163	Private	1,300	1,500	2,405		2,500	.20 – .15	.10 – .04		Mc. M. C.
164		11,800	4,470	10,400		11,530				Mc. O.
165										Mc. O.
166										Mc. O.
167										Mc.
168			700	600		645				Mc.
169	Private	500				400	.10	24.00		Mc. C.
170	Do	1,000				800		24.00		C.
171	Do	1,500				1,250	.0075			C.
172	Do	200			50	100	.10			Mc. C.
173	Do	160	250	350		345	.15 – .08	.16 – .04	Tri County Light & Power Co.	Mc. M. C.
174		1,500				750				Mc. M.
175			1,500	1,500		1,200				
176			375	450		290				Mc.
177	Private	80	150	130		95	.15 – .06	.10 – .027		Mc. M. C.
178	Do	80	80	75		30				Mc. C.
179–318			62,145	106,059	1,828	80,871				
	Total, A	587,637	350,851	812,206	6,306	997,731				

B.—MUNICIPAL PLANTS.

319	Private	300				200	$0.06 –$0.045	$0.0129		Mc. C.
320	Do	390	250	250		265	.10 – .03	$0.06– .03		Mc. C.
321		240				150				Mc.
322	Private	420	150	(150)		150				Mc. C.
323		485			150	350				Mc.
324		170				100				Mc.
325–365			10,095	8,181	1,240	6,730				
	Total, B	2,005	10,495	8,581	1,390	7,945				

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

NEW YORK—Continued.

C.—ALL OTHER PLANTS.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
366	Aldrich Paper Co		Manufacturing	Emeryville	Emeryville	Oswegatchie River
367	Do		do	Natural Dam	Natural Dam	do
368	American Carbide Co			Plattsburg		Saranac River
369	American Woolen Co			Fulton		Oswego River
370	American Woodboard Co		Manufacturing	Schuylersville	Easton	Battenkill River
371	Brooklyn Rapid Transit Co	G	Electric railways	Brooklyn	Brooklyn	
372	Do	G	do	do	do	
373	Do	G	do	do	do	
774	Do	G	do	do	do	
375	Do	G	do	do	do	
376	Brownville Board Co		Manufacturing	Brownville	Brownville	Black River
377	Champion Paper Co		do	Carthage	West Carthage	do
378	Chautauqua Traction Co		Electric railways	Jamestown	Jamestown	
379	Cornell University		Cornell University	Ithaca		Fall Creek
	Delaware & Hudson Co	H				
380	Hudson Valley R. R. Co	G	Electric railways	Middle Falls	Greenwich	Battenkill
381	Do	G	do	Stillwater	Stillwater	Hudson River
382	Finch, Pruyn & Co			Glens Falls	Glens Falls	do
	Fishkill Electric Ry. Co	G				
383	(Lessor, Citizens Railroad, Light & Power Co.)	L	Electric railways	Matteawan	Matteawan	
384	Gould Paper Co	G	Manufacturing	Lyons Falls	Lyons Falls	Black River
385	Granby Pulp & Paper Co		do	Fulton	Fulton	Oswego River
386	Heuvelton Feed Mills			Feed Mill	Heuvelton	Heuvelton
387	Hudson & Manhattan R. R. Co	G	Electric railways	Jersey City	Jersey City	
	Interborough Metropolitan Co	H				
388	Interborough Rapid Transit Co	G	do	New York	New York	
389	Do	G	do	do	do	
390	New York Railways Co	G		do		
391	International Paper Co	G	Manufacturing	Cadyville	Cadyville	Saranac River
392	Do		do	Fort Edward	Fort Edward	Hudson River
393	Do		do	Glens Falls	South Glens Falls	do
394	Do		do	Hudson River	Palmer	do
395	Do		do	Lake George	Ticonderoga	Lake George outlet
396	Do		do	Niagara Falls	Niagara Falls	Niagara River
397	Do		do	Piercefield	Piercefield	Raquette River
398	Do		do	Watertown	Watertown	Black River
399	Do		do	Woods Falls	Brownville	do
400	(Lessor, Warren Curtis Manufacturing Co.)		do	Curtis Mill	Corinth	Hudson River
401	International Pulp Co			Edwards		
402	Do			Fowler		
403	Do			Gouverneur		Oswegatchie River
404	Iroquois Pulp & Paper Co			McKeever		Hudson River
405	Do			Thompson		Moose River
406	Knowlton Electric Plant	G		Nicholville	Nicholville	Eastern Branch St. Regis River.
407	Lewis, J. P., Co	G	Manufacturing	Beaver Falls	Beaver Falls	Beaver River
408	New York Central & Hudson River R. R. Co	G	Railroads	Glenwood	Glenwood	
409	Do		do	Port Norris	Port Norris	
410	Oswego Falls Pulp & Paper Co	G	Manufacturing	Fulton	Fulton	Oswego River
411	Pennsylvania R. R. Co	G	Railroad	New York	Long Island City	
412	Racquette River Paper Co			Potsdam		Racquette River
413	Raymondville Paper Co			Raymondville		do
414	Remington Paper & Power Co		Manufacturing	Norfolk	Norfolk	do
415	Rogers, J. & J., Co	G	do	Ausable Chasm		Ausable River
416	Do		do	Ausable Forks	Ausable Forks	do
417	Do		do	Black Brook	Black Brook	Black Brook
418	St. Regis Paper Co	G	do	Black River	Black River	Black River
419	Do	G	do	Carthage	Carthage	St. Regis River
420	Do	G	do	Deferiet		Black River
421	Do	G	do	Herrings		do
422	Do	G	do	St. Regis Falls	Waverly	St. Regis River
423	Schroon River Pulp & Paper Co	G	do	Warrensburg		Schroon River
424	Syracuse & Suburban R. R. Co	G	Electric railways	Edwards Falls	Manlius	Limestone Creek
425	Union Bag & Paper Co			Ballston		
426	Do			Hadley		
427	Do			Hudson Falls		Hudson River
428	United Paper Board Co		Manufacturing	Franklin	Lockport	
429	Do		do	Lockport	do	Eighteen Mile Creek
430	Do		do	Thomson	Thomson	Hudson River
431	West End Paper Co		do	Carthage	Carthage	Black River
432	West Virginia Pulp & Paper Co	G	do	Mechanicsville	Mechanicsville	Hudson River
433–449	17 additional fuel power plants					

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

NEW YORK—Continued.

C.—ALL OTHER PLANTS.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from —	Source of information.
366	Private	2,200								O. C.
367	Do	2,450	750	450						O. C.
368		3,000								O.
369		3,000								M. O.
370	Private	3,200	500	300						O. C.
371										
372										
373			91,236	198,025		143,580				
374										
375										
376	Private	3,221	475	175						O. C.
377	Do	2,600	750	375						O. C.
378		(4,000)	4,700	3,500						Mc.
379	Private	1,150		750						C.
380	Do	500				500			D. & H. Co	C.
381	Do	450				500			do	C.
382		10,000								O. C.
383		350	700	700		1,050				Mc. M.
384	Private	5,600	1,200			1,230				O. C.
385	Do	5,000								O. C.
386		240								O.
387			8,160	24,000		18,000				Mc. Mc.
388			36,880	74,000		60,000				Mc.
389			30,000	117,500		67,500				Mc.
390			21,000	55,000		38,000				Mc.
391	Private	8,400	400	125	50	40				C.
392	Do	5,800	5,500	4,500		1,100				C.
393	Do	5,700	3,110	2,900		75				C.
394	Do	24,000	6,300	3,000		1,780				C.
395	Do	5,100	1,250	1,300		40				C.
396	Do	5,780	3,100	1,900		120				O. M. C.
397	Do	4,700	1,700	2,000		312½				C.
398	Do	1,200	780	250		30				C.
399	Do	8,700	1,400	1,000		120				C.
400	Do	5,800								C.
401										
402		8,657								
403										
404										O.
405		3,600								O.
406	Private	65				90				C.
407	Do	1,500	625	300		(1,100)				O. C.
408			10,000	26,800		20,000				Mc.
409										
410	Private	6,600	1,500	1,200		5,625				O. C.
411			18,900	74,700		38,500				Mc.
412		3,300								O.
413		6,600								O.
414	Private	5,000	1,500	1,000					St. Lawrence Traction Co.	O. C.
415	Do	1,250				300				O. C.
416		1,725	1,600	650		525			Paul Smith's Electric Light, Heat, Power & Railroad Co.	O. C.
417	Private	300				300				O. C.
418	Do	1,000	200	192		(30)	$0.10			M. C.
419			450	274	4½	20				M. C.
420	Private	15,000	3,500	1,600		660				M. O. C.
421	Do	3,800	800	460		700				M. C.
422	Do		100	60		(10)				M. C.
423	Do	3,150	450	375		40				O. C.
424		600	450			450			New York State Railways and Syracuse Lighting Co.	Mc. M. C.
425										M.
426		9,000								M.
427										M. O.
428	Private	800								C.
429		1,000								M. O. C.
430	Private	3,250	600	490						M. O. C.
431	Do	2,000	750	350	12				Northern New York Utilities Co.	O. C.
432	Do	9,550	7,000	8,800		9,543				M. O. C.
433-449			15,540	30,205	2,595	17,849				
	Total, C	209,888	283,856	639,206	2,661	429,718				
	Grand total	799,530	645,202	1,459,993	10,357	1,435,394				

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

NORTH CAROLINA.

A.—PUBLIC UTILITY PLANTS.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
1	Belhaven Lumber Co., light plant			Belhaven		
2	Black Mountain Telephone Corporation	GD	Black Mountaon	Black Mountain	Black Mountain	
3	Boney, John B	G	Wallace	Wallace		
4	Brevard Light & Power Co	D	Brevard	Brevard	Brevard	
5	Canton Electric & Telephone Co	D	Canton and Clyde	Canton		
6	Carolina Electric Co	GD	Maxton and Alma	Maxton		
7	Do	GD	Whiteville	Whiteville	Whiteville	
8	Carolina Power & Light Co	HGTD	Goldsboro	Buckhorn Falls		Cape Fear River
9	Do			Millburnie		Neuse River
10	Do			Goldsboro	Goldsboro	
11	Do		Henderson	Henderson	Henderson	
12	Do			Raleigh		
13	Do		Sanford	Sanford	Sanford	
14	Asheville Power & Light Co	GTD	Asheville, Biltmore, and vicinity.	Asheville	Asheville	Hominy Creek
15	Yadkin River Power Co	GTD	Hamlet, Wadesboro, and vicinity.	Rockingham		
16	Do	GTD	Wadesboro	Wadesboro	Wadesboro	
17	Cascade Power Co	GTD	Brevard and Pisgah Forest	Brevard	Brevard	Little River
18	Chandler, I. F	GD	Southern Pines and Aberdeen.	Southern Pines		
19	Citizens Light & Power Co	GD	Lenoir	Lenoir	Lenoir	
20	Citizens Power & Light Co	D	Pine Level, Kenly, and Princeton.	Pine Level		
21	Cleveland Mill & Power Co	GD	Lawndale	Lawndale	Lawndale	First Broad River
22	Conover Electric Co	D	Conover	Conover		
23	Dillsboro & Sylva Electric Light Co	GD	Dillsboro and Sylva	Dillsboro	Dillsboro	Tuckaseigee River
	Doherty Operating Co	M				
24	Durham Traction Co	GTD	Durham	Durham	Durham	
25	Duplin Light & Power Co. (Inc.)	D	Wallace	Wallace		
26	Eastern Cotton Oil Co	GD	Hertford	Hertford	Hertford	
27	Electric Light Co	GD	Ayden	Ayden	Ayden	
	Electric Light Co. of Elizabeth City	H				
28	Elizabeth City Electric Light & Power Co	GD	Elizabeth City	Elizabeth City	Elizabeth City	
29	Elkin Brick & Light Co			Elkin		
30	Enterprise Lumber Co	GD	Mount Olive	Mount Olive	Mount Olive	
31	Franklin Light & Power Co	GD	Franklin	Franklin	Franklin	
32	Franklin Lumber & Power Co	GD	Franklinton	Franklinton	Franklinton	
33	Freeman, M. C., Electric Light Plant	GD	Hamlet	Hamlet	Hamlet	
34	Gaysburg Manufacturing Co	GD	Burgaw	Burgaw	Burgaw	
35	Haywood Electric Power Co	GTD	Waynesville and Waterville	Waynesville		Pigeon River
36	Hendersonville Light & Power Co	GD	Hendersonville and Flat Rock.	Hendersonville, No. 1	Hendersonville	Big Hungry Creek
37	Do			Hendersonville, No. 2	do	do
38	Hope Mills Manufacturing Co. Light Plant	GD	Hope Mills	Hope Mills	Hope Mills	Little Rockfish Creek
39	Hot Springs Manufacturing Co	GD	Hot Springs	Hot Springs		
40	Jackson Electric Co	GD	Jackson	Jackson	Jackson	
41	Lakeview Electric Light & Power Co	GD	Lakeview, Rocford, and Vass	Lakeview		
42	Leaksville Light & Power Co	GD	Leaksville	Leaksville	Leaksville	
43	Madison Light & Power Co	D	Marshall	Marshall		
44	Marion Light & Power Co	GD	Marion	Marion	Marion	Toms Creek
45	Murphy Light & Power Co	GD	Murphy	Murphy		
46	North Carolina Electrical Power Co		Biltmore, Asheville, Marshall and vicinity.	Ivy		Ivy River
47	Do			Marshall No. 1	Marshall	French Broad River
48	Do			Weaver	Asheville	
49	North Carolina Public Service Co	GTD	Rowan and Guilford Counties.	Greensboro	Greensboro	
50	Salisbury & Spencer Railway Co	GTD	Salisbury	Salisbury	Salisbury	
51	Piedmont Railway & Electric Co	GD	Alamance County	Burlinton	Burlinton	
52	Randolph Power Co	GD	Randleman	Randleman	Randleman	
53	Roper, J. L., Lumber Co	GD	Belhaven	Belhaven	Belhaven	
54	Do	GD	Newbern	Newbern	Newbern	
55	Do	GD	Roper	Roper	Roper	
56	Rowland Lumber Co	GD	Bowdens	Bowdens	Bowdens	
57	Roxboro Light & Power Co	GD	Roxboro	Roxboro	Roxboro	
58	St. Pauls Light & Power Co	GD	St. Pauls	St. Pauls		
59	Sampson Power Co	GD	Clinton	Clinton	Clinton	
60	Siler City Light & Telephone Co	GD	Siler City	Siler City		
61	Southern Power Co	HGTD	Western part of South Carolina and central part of North Carolina.	Durham	University	
62	Do			Greensboro	Greensboro	
63	Do			Lookout Shoals		Catawba River
64	Do			Mount Holly	Mount Holly	
65	Southern Presbyterian College	GD	Red Springs	Red Springs	Red Springs	
66	Southern Public Utilities Co	HGTD		Charlotte	Charlotte	
67	Do	HGTD	Charlotte	Winston-Salem	Winston-Salem	Yadkin River
68	Southport Light & Power Co	GD	Southport	Southport	Southport	
69	Spencer Mountain Mills	GD	Gastonia	Lowell	Lowell	South Fork Catawba River.
70	Sutton, H. H., & Son, Light Plant	GD	La Grange	La Grange	La Grange	Bear Creek
71	Tidewater Power Co	GTD	Wilmington and vicinity	Wilmington	Wilmington	
72	Tryon Electric Service Co	GD	Tryon and Landron, S. C	Tryon	Tryon	
73	Tuft, Leonard		Pinehurst	Pinehurst	Pinehurst	
	Virginia Railway & Power Co	H				
74	Roanoke River Development Co	GD	Weldon	Weldon		Roanoke River
75	Warrenton Electric Light Co	GD	Warrenton	Warrenton	Warrenton	
76	Weaverville Electric & Telephone Co		Weaverville	Weaverville	Weaverville	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

NORTH CAROLINA.

A.—PUBLIC UTILITY PLANTS.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
1										M.
2				125		75	$0.05		Buys steam	Mc.
3										Mc.
4	Private						$0.10 - 0.050	$0.07 $0.025	Cascade Power Co.	C. Mc
5									Champion Lumber Co.	Mc.
6		100	100	100		75			Yadkin River Power Co.	Mc.
7			125	125		50				Mc.
8		4,000				2,475				M. Mc. O.
9						400				M. Mc. O.
10			450	400		690				M. Mc.
11			300	400		225				M. Mc.
12			3,404	5,700		3,750				M.
13			125	100		75				Mc.
14	Private	400	750	925		850	.15- .07	.08- .04	North Carolina Electric Power Co.	C. Mc. O.
15		(40,000)				24,000				M. Mc. O.
16			140	200		99				M. Mc.
17	Private	500				325	[1] 25.00-20.00			C. Mc.
18		250	250	225		235				Mc.
19			175	(290)		175				Mc.
20									Carolina Power Light Co.	Mc.
21	Private	250	400	300		(500)				C.
22									Southern Power Co.	Mc.
23	Private	330				200	.10	25.00-20.00		C. Mc.
24			1,750	2,220		800				C. Mc.
25									John B. Boney	Mc.
26			350	150		60				Mc.
27	Private		100	75		40				C.
28			750	1,000		750	.10- .075	.075- .028		C. M. Mc.
29										
30	Private		(250)	300		200	.03			C.
31		140				50				Mc.
32			100	125		75				Mc.
33			90	80		50				Mc.
34	Private		150	40		25				C.
35		1,950				1,400				Mc. O.
36	Private	350	300	400		550	.10- .05	.10 - .012		C. Mc.
37	Do	208				150	.10- .05	.10 - .012		C. Mc.
38	Do	300				90				C.
39		90				(53)				Mc.
40	Private		100	70		50				C.
41		350	250	250		275				Mc.
42	Private	100		225		60				C. Mc.
43									North Carolina Electric Power Co.	Mc.
44		185	50	40		125	.15- .05	.025- .0135		C. Mc.
45		200				75				Mc.
46		330				400				C. M. Mc. O.
47	Private	5,000				3,750	.01			C. M. Mc. O.
48		2,000				1,500				C. M. O.
49			1,200	2,000		1,540			Southern Power Co.	M. Mc.
50			460	(480)		290			do	M. Mc.
51	Private		1,008	2,500		2,275	.09- .05	.03 - .01	do	C. M. Mc.
52			150	125		100				Mc.
53										Mc.
54			5,150	4,300		640				Mc.
55										Mc.
56						170				C. Mc.
57	Private		100	100		75	.15	.10	Carolina Power & Light Co.	Mc.
58		100	150	100		(100)				C. Mc.
59	Private		100	100		75	.15	.05		Mc.
60		50			50	50				C. Mc.
61	Private		4,000	16,670		12,500	.09- .005	.09 - .005		C. Mc. O.
62	Do		4,500	10,670		8,000	.09- .005	.09 - .005		C. M. Mc. O.
63	Do	30,000				22,800	.09- .005	.09 - .005		C. Mc. O.
64	Do		4,500	10,670		8,000	.09- .005	.09 - .005		Mc.
65			150	105		85				M. Mc.
66					1,700	1,275				C. M. Mc.
67		2,100	700	1,650		1,500			Southern Power Co.	C. Mc.
68			180	148		125				C. Mc.
69	Private	1,000				800			Southern Power Co.	C. Mc.
70	Do	75	50	40		75				C. Mc.
71	Private		1,728	5,000		3,800	.12 - .05	.07- .02		M. Mc.
72		25	80	265		130				C.
73	Private		500	500		575	.16 - .08			C. Mc.
74	Do	600				500	.10 - .08	.05- .025		Mc.
75			50	(80)		(50)			Buys steam	C.
76	Private						.15 - .075	.03	North Carolina Electric Power Co.	
	Total, A	91,183	35,215	69,333	1,750	110,259				

[1] Lamp-hour.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

NORTH CAROLINA—Continued.

B.—MUNICIPAL PLANTS.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
77		D	Albemarle	Albemarle		
78		GD	Andrews	Andrews		
79		GD	Ashboro	Ashboro	Ashboro	
80		GD	Beaufort	Beaufort	Beaufort	
81	University of North Carolina	GD	Chapel Hill	Chapel Hill	Chapel Hill	
82		D	Concord	Concord		
83		GD	Dunn	Dunn	Dunn	
84		GD	Edentown	Edentown	Edentown	
85		GD	Elkin	Elkin	Elkin	Big Elkin Creek
86		GD	Elm City	Elm City	Elm City	
87		GD	Enfield	Enfield	Enfield	
88		GD	Farmville	Farmville	Farmville	
89		D		Fayetteville		
90		GD	Fremont	Fremont	Fremont	
91		D	Gastonia	Gastonia	Gastonia	South Fork Catawba River.
92		GD	Greenville	Greenville	Greenville	
93		D	High Point and Mechanicsville.	High Point		
94		D	Hope Mill	Hope Mill		
95		D	Kings Mountain	Kings Mountain	Kings Mountain	
96		GD	Kingston	Kingston	Kingston	
97		GD	Laurinburg	Laurinburg	Laurinburg	
98		D	Lexington	Lexington		
99		D	Lincolnton	Lincolnton		
100		GD	Littleton	Littleton	Littleton	
101		GD	Louisburg	Louisburg	Louisburg	
102		GD	Lumberton	Lumberton	Lumberton	
103		D	Monroe	Monroe		
104		D	Mooresville	Mooresville	Mooresville	
105		GD	Morehead City	Morehead City	Morehead City	
106		GD	Morganton	Morganton	Morganton	
107		GD	Mount Airy	Mount Airy	Buck Shoals	Ararat River
108		GD	Mount Olive	Mount Olive	Mount Olive	
109		GD	Newbern	Newbern	Newbern	
110		D	Newton	Newton		
111		GD	North Wilkesboro	North Wilkesboro	North Wilkesboro	Riddles River
112		GD	Reidsville	Reidsville	Reidsville	
113		GD	Rocky Mount	Rocky Mount	Rocky Mount	
114		GD	Rowland	Rowland	Rowland	
115		GD	Rutherfordton	Rutherfordton		
116		GD	Scotland Neck	Scotland Neck	Scotland Neck	
117		GD	Selma	Selma	Selma	
118		GD	Spray	Spray		
119		D	Statesville	Statesville		
120		GD	Tarboro	Tarboro	Tarboro	
121		GD	Wake Forest	Wake Forest	Wake Forest	
122		GD	Washington	Washington	Washington	
123		D	Waynesville	Waynesville		
124		GD	Whitakers	Whitakers	Whitakers	
125		GD	Wilson	Wilson	Wilson	

C.—ALL OTHER PLANTS.

126	Continental Chair Manufacturing Co	G	Manufacturing	Mebane	Mebane	
127	Erwin Cotton Mills Co		do	Cooleemee	Cooleemee	South Yadkin River
128	Highland Park Manufacturing Co			Charlotte		
129	Laurel Park Street Railway Co	G	Electric railway	Hendersonville	Hendersonville	
130	McAden Mills			McAdenville		South Branch Catawba River.
131	Roanoke Rapids Power Co			Roanoke Rapids		Roanoke River

NORTH DAKOTA.

A.—PUBLIC UTILITY PLANTS.

1	Beach Electric Co	GD	Beach	Beach	Beach	
	Byllesby, H. M., & Co	M				
2	Consumers Power Co	GD	Minot	Minot	Minot	
	Red River Power Co	GD				
3	(Lessor, Consumers Power Co.)	L	Red Lake Falls and Grand Forks.	Grand Forks	Grand Forks	
	Union Light, Heat & Power Co	GD				
4	(Lessor, Consumers Power Co.)	L	Fargo and Dilworth, Minn	Fargo	Fargo	
5	Cando Electric Co	GD	Cando	Cando	Cando	
6	Carrington Light, Heat & Power Co	GD	Carrington	Carrington	Carrington	
7	Casselton Electric Light Plant	GD	Casselton	Casselton	Casselton	
8	Cavalier Electric Light Plant	GD	Cavalier	Cavalier	Cavalier	
9	Cogswell Electric Light & Power Co	GD	Cogswell	Cogswell	Cogswell	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

NORTH CAROLINA—Continued.

B.—MUNICIPAL PLANTS.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
77									Southern Power Co	Mc.
78		75				135				Mc.
79			250	250		225	$0.10 -$0.04			C. Mc.
80			275	100		75				Mc.
81			280	250		125				C. Mc.
82									Southern Power Co	Mc.
83			300	200		150				Mc.
84			160	280		140				Mc.
85	Private	200				150	.10	$0.10–$0.02		C. Mc.
86			130	125		90				Mc.
87			125	100		75				Mc.
88			200	85		62½				Mc.
89									Carolina Power & Light Co	C.
90	Private		100	90		45	.12			C. Mc.
91							.10 - .05	.05- .0225	Spencer Mountain Mills	C. Mc.
92			950	1,350		1,150				Mc.
93								.025	North Carolina Public Service Co.	Mc.
94									Hope Mills Manufacturing Co	Mc.
95	Private						.10 - .03	.03	Southern Power Co	C. Mc.
96			450	450		300				Mc.
97			200	100		100	.10			Mc.
98									Southern Power Co	Mc.
99									do	Mc.
100			125	100		75				Mc.
101	Private		300	150		105				C. Mc.
102			260	260		282				Mc.
103									Southern Power Co	Mc.
104									do	Mc.
105										Mc.
106			150	200		150				Mc.
107	Private	460				300	.07	.06- .0125		C. Mc.
108	Do		180	75		60	.125- .075	.05		C. Mc.
109			(600)	800		510				Mc.
110									Southern Power Co	Mc.
111	Private	100	150	150		100	.08			C. Mc.
112			375	200		195				Mc.
113	Private		530	1,300		980	.10	.05		C. Mc.
114			80	103		75	.15			C. Mc.
115		200				150				M.
116	Private		400	525		402	.13	.05- .02		C. Mc.
117	Do		100	80		65	.15	.10	Carolina Power & Light Co	C. Mc.
118										Mc.
119									Southern Power Co	Mc.
120	Private		550	500		150	.125	.05		C. Mc.
121			90	85		60	.15			Mc.
122			125	150		120				Mc.
123									Haywood Electric Power Co	Mc.
124			100	75		50	.15			C. Mc.
125			450	700		525				Mc.
	Total, B	1,035	7,985	8,923		7,176				

C.—ALL OTHER PLANTS.

126	Private		150	125		45				C.
127	Do	2,037	1,206	1,240		257				C. O.
128										M.
129			200	150		150				C.
130		750								O.
131		4,100								O.
	Total, C	6,887	1,556	1,515		452				
	Grand total	99,105	44,756	79,771	1,750	117,887				

NORTH DAKOTA.

A.—PUBLIC UTILITY PLANTS.

1			100	150		75	$0.15			Mc. O. M.
2			1,040	700		490	$0.11 - .043	$0.09 -$0.032		Mc. O. Mc. M. O.
3			2,650	3,000		2,075	.11 - .0338	.06 - .0315		Mc. M. O.
4			2,248	3,250		2,060	.11 - .0355	.067- .033		Mc. M. O. Mc. M. O.
5			150	200		110	.125			Mc. O.
6			180	150		95	.16 - .08	.10 - .06		O.
7					95	57½	.15	.08		Mc. O.
8			205	125		50	.14 - .12			Mc. O.
9					25	15	.20	.20		Mc. O.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

NORTH DAKOTA—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
10	Consumers General Service Co	GD	New Rockford	New Rockford	New Rockford	
11	Delameter Bros	GD	Knox	Knox	Knox	
12	Enderlin Electric Light Co	GD	Enderlin	Enderlin	Enderlin	
13	Equity Milling & Power Co	GD	Mott	Mott	Mott	
14	Finley Light & Power Co	GD	Finley	Finley	Finley	
15	Harvey Electric Light & Power Co	GD	Harvey	Harvey	Harvey	
16	Hebron Electric Light & Power Co	GD	Hebron	Hebron	Heoron	
17	Hughes & Dieters Electric Light Plant	GD	Dickinson	Dickinson	Dickinson	
18	Hughes Electric Co	GD	Bismarck, Mandan, and Fort Lincoln.	Bismarck	Bismarck	
19	Hunter Light & Power Co	GD	Hunter	Hunter	Hunter	
20	International Power Co	GD	Portal, N. Dak., and North Portal, S. Dak.	Portal	Portal	
21	Kulm Mill Co	GD	Kulm	Kulm	Kulm	
22	Lakota Light & Power Co	GD	Lakota	Lakota	Lakota	
23	Langdon Electric & Power Co	GD	Langdon	Langdon	Langdon	
24	Leeds Electric Light & Power Co	GD	Leeds	Leeds	Leeds	
25	Lidgerwood Light & Power Co	GD	Lidgerwood	Lidgerwood	Lidgerwood	
26	Lisbon Electric Light & Power Co	GD	Lisbon	Lisbon	Lisbon	
27	McKellips, A. M. & O	GD	Hope	Hope	Hope	
28	Mandan Electric Co	GD	Mandan	Mandan	Mandan	
	National Briquetting Co	H				
29	Kenmare Light & Power Co	GD	Kenmare and Woodland	Kenmare	Kenmare	
30	Northern Telephone Co	GD	Rugby	Rugby	Rugby	
31	Oakes Light & Power Co	GD	Oakes	Oakes	Oakes	
32	Otter Tail Power Co	GD	Wahpeton	Wahpeton	Wahpeton	
33	Do		Hankinson	Hankinson	Hankinson	
34	Ray Electric Co	GD	Ray	Ray	Ray	
35	St. Marys Monastery Electric Light Plant	GD	Richardton	Richardton	Richardton	
36	Sharon Light & Power Co	GD	Sharon	Sharon	Sharon	
37	United States Reclamation Service	GT	Williston	Williston	Williston	
38	Velva Electric Service Co	GD	Velva	Velva	Velva	
39	Walhalla Roller Mill Co	GD	Walhalla	Walhalla	Walhalla	Pembina River.
40	Western Electric Co	GD	Jamestown	Jamestown	Jamestown	
41	Western Utilities Corporation	GD	Devils Lake	Devils Lake	Devils Lake	
42	White Earth Electric Association	GD	White Earth	White Earth	White Earth	
43	Woodward, F. M	GD	Bottineau	Bottineau	Bottineau	

B.—MUNICIPAL PLANTS.

44		GD	Cooperstown	Cooperstown	Cooperstown	
45		GD	Edgeley	Edgeley	Edgeley	
46		GD	Grafton	Grafton	Grafton	
47		GD	Grand Forks	Grand Forks	Grand Forks	
48		GD	Hillsboro	Hillsboro	Hillsboro	
49		GD	Larimore	Larimore	Larimore	
50		GD	Mayville	Mayville	Mayville	
51		GD	Park River	Park River	Park River	
52		GD	St. Thomas	St. Thomas	St. Thomas	
53		GD	Valley City	Valley City	Valley City	
54		GD	Williston	Williston	Williston	

OHIO.

A.—PUBLIC UTILITY PLANTS.

1	Ada Water, Heat & Light Co		Ada	Ada	Ada	
2	Algonquin Light, Heat & Power Co	GD	Dayton	Dayton	Dayton	
3	Allinger, B. B., Co			Quincy		
	American Gas & Electric Co	H				
4	Canton Electric Co	GD	Canton and Louisville	Canton	Canton	
5	Ohio Light & Power Co		Crooksville	Crooksville	Crooksville	
6	Do		Fostoria	Fostoria	Fostoria	
7	Do		Fremont	Fremont	Fremont	
8	Do		Lancaster	Lancaster	Lancaster	
9	Do		Logan	Logan	Logan	
10	Do	GD	Mount Vernon, Academica, and Fredericktown.	Mount Vernon	Mount Vernon	
11	Do			Newark	Newark	
12	Do		New Lexington	New Lexington	New Lexington	
13	Do		Shawnee and New Straitsville.	Shawnee	Shawnee	
14	Do		Tiffin	Tiffin	Tiffin	
	American Rys. Co	H				
15	Ironton Electric Co	GD	Ironton	Ironton	Ironton	
16	Peoples Ry. Co	GD		Germantown	Dayton	
17	Springfield Ry. Co	GD		Sycamore Street	Springfield	
	American Water Works & Electric Co	H				
18	Steubenville & Wheeling Traction Co	GTD		Brilliant	Brilliant	
19	Ansonia Lighting Co			Ansonia		

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

NORTH DAKOTA—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
10					120	75	$0.133	$0.077		Mc. O.
11					1½	3½				O.
12			205	160		137½	$0.15 - .11	.08		Mc. O.
13			125	75		75	.20	.10		O.
14					35	27	.25			Mc. O.
15			125	65		90	.15 - .10	$0.09- .05		Mc. O.
16			200	142		82½	.15			Mc. O.
17			450	520		500	.125	.06- .025		Mc. O.
18			2,000	1,200		1,300	.125- .10	.06- .02		Mc. M. O.
19					35	20	.20			O.
20			65	(110)		97½	.18 - .08			O.
21			125	125		35	.15			O.
22			200	175		135	.15	.08- .05		Mc. O.
23			300	175		160	.125- .10			Mc. O.
24			100	60	11	41½	.16 - .10			Mc. O.
25			225	200		105	.11	.08- .05		O.
26					200	150	.15 - .08	.07- .035		Mc. O.
27			90	70		(40)				Mc. O.
28			300	570		380	.125	.08		Mc. O.
29			300	425		400	.15 - .10	.10		Mc. O.
30			225	200	25	105	.14 - .10			Mc. O.
31			500	325		600	.14	.08		Mc. O.
32			430	500		350	.12 - .06	.10- .03		Mc. O.
33			125	100		75	.15	.08		
34					60	37½	.15			Mc. O.
35			750	75		50	.15	.12		Mc. O.
36					37	22½	.25	.25		O.
37	Government		2,080	1,550		1,150	.045- .02			O.
38					50	40	.15 - .12	.10		Mc. O.
39	Private	80	100	80		40	.12			Mc. O.
40			700	450		385	.12 - .08	.10- .06		Mc. O.
41			400	400		375	.132	.077		Mc. O.
42					9	7½	.20			Mc. O.
43			(150)	150		75	.14 - .10			Mc. O.
	Total, A	80	16,843	15,477	706	12,194				

B.—MUNICIPAL PLANTS.

44					205	131	$0.135			O.
45			100	80		30	.15			Mc. O.
46			280	175		150	.11			Mc. O.
47			650	325		100				Mc.
48			120	220		155	.125	$0.08–$0.035		Mc. O.
49			200	120		90	.12	.12		Mc. O.
50			180	145		100	.125			Mc. O.
51			200	125		75	.125			Mc. O.
52					37	22	.23	.23		Mc. O.
53			516	865		575	$0.12 - .08	.08- .055		Mc. O.
54			500	375		275	.11 - .09	.07- .04	United States Reclamation Service.	Mc. O.
	Total, B		2,746	2,420	242	1,703				
	Grand total	80	19,589	17,897	948	13,897				

OHIO.

A.—PUBLIC UTILITY PLANTS.

1			650	250		150				M. Mc.
2			575	490		225				Mc.
3										S.
4			5,228	17,330		11,290				M. Mc.
5			150	175		75				M. Mc.
6			450	625		450				M. Mc.
7			1,000	1,150		675				M. Mc.
8			575	575		430				M. Mc.
9			300	400		250				M. Mc.
10			1,200	1,165		1,185				M. Mc.
11			400	350	1,050	1,225				M. Mc.
12					225	200				M. Mc.
13					160	120				
14			1,450	2,200		1,770				Mc.
15			1,250	800		800			Consolidated Light, Heat & Power Co.	M. Mc.
16			2,300	2,500		2,000				M. Mc.
17			1,300	1,350		950				M. Mc.
18			1,800	1,825		1,175				M. Mc.
19										S.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

OHIO—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
20	Arcadia Electric Light Co	GD	Arcadia	Arcadia	Arcadia	
21	Archbold Electric Light & Power Co	GD	Archbold	Archbold	Archbold	
22	Ashland Gas & Electric Light Co	GD	Ashland	Ashland	Ashland	
23	Ashville Light & Power Co	D	Ashville	Ashville	Ashville	
24	Auglaize Power Co	GTD	Henry, Lucas, and Defiance Counties.	Auglaize	S. 9, T. 3 N., R. 3 E	Auglaize River
25	Baker, A. D., Co			Swanton		
26	Barberton Light & Power Co	GD	Barberton	Barberton	Barberton	
27	Barnesville Gas & Electric Co	GD	Barnesville	Barnesville	Barnesville	
	Barstow, W. S., & Co	M				
28	Northwestern Ohio Railway & Power Co	GTD	Genoa and vicinity	Port Clinton	Port Clinton	
29	Port Clinton Electric Light & Power Co	D	Port Clinton	do	do	
30	Sandusky Gas & Electric Co	GD	Sandusky	Sandusky	Sandusky	
31	Bellaire Light & Power Co	GD	Bellaire	Bellaire	Belleaire	
32	Belleville Electric Light Co			Belleville		
33	Bloomdale Electric Light Co	GD	Bloomdale	Bloomdale	Bloomdale	
34	Bloomville Light & Heating Co	GD	Bloomville	Bloomville	Bloomville	
35	Bolivar Electric Light Co			Bolivar		
36	Bradford & Gettysburg Electric Light & Power Co	D	Bradford, Gettysburg, Pittsburgh.	Bradford		
37	Bradley Light, Heating & Power Co			Cleveland		
38	Bruce, S. H	D	Garrettsville	Garrettsville		
39	Buckeye Light & Power Co	GD	Covington, Ludlow Falls, and Pleasant Hill.	Covington	Covington	Greenville Creek.
40	Burton Electric Light Plant	GD	Burton	Burton	Burton	
41	Bushman Bros. Light Plant			Pemberville		
42	Cadiz Electric Light & Power Co	GD	Cadiz	Cadiz	Cadiz	
43	Camden Electric Light & Milling Co	GD	Camden	Camden	Camden	Seven Mile Creek
44	Cantine & Company Light Plant	GD	Crestline	Crestline	Crestline	
45	Cardington Electric Light, Heat & Power Co	GD	Cardington	Cardington	Cardington	
46	Carrollton Electric Co	GD	Carrollton	Carrollton	Carrollton	
	Central States Electric Corporation	H				
47	Cleveland Electric Illuminating Co	GD	Cleveland and vicinity	Cleveland	Cleveland	
48	Chagrin Falls Electric Co	GD	Chagrin Falls	Chagrin Falls	Chagrin Falls	
49	Cincinnati & Columbus Traction Co	GTD		Perintown	Perintown	
50	Cincinnati, Milford & Loveland Traction Co	GTD	Milford and Terrace Park	Milford	Milford	
51	Circleville Light & Power Co	GD	Circleville	Circleville	Circleville	
52	Citizens Electric Light, Power & Heating Co	GD	Shreve	Shreve	Shreve	
53	Citizens Lighting & Heating Co	GD	Toledo	Toledo	Toledo	
54	Citizens Light Co	D	West Manchester	West Manchester	West Manchester	
55	Citizens Light & Power Co	GD	Millersburg	Millersburg	Millersburg	
56	Cleveland Light & Power Co	GD		Cleveland	Cleveland	
	Cleveland, Painesville & Eastern R. R. Co	GD				
57	(Lessor, Cleveland, Painesville & Ashtabula R. R.)	L		Painesville	Painesville	
58	Cleveland, Southwestern & Columbus Ry. Co	HGTD		Elyria	Elyria	
59	Do			Norwalk	Norwalk	
60	Mansfield Railway, Light & Power Co	GD	Mansfield	Main Street	Mansfield	
61	Coldwater Lighting Co	D	Coldwater	Coldwater	Coldwater	
	Columbia Gas & Electric Co	H	Cincinnati, Carthage			
62	Union Gas & Electric Co	GD	Wyoming, Glendale	Cincinnati	Cincinnati	
63	Columbiana Light & Power Co			Salem		
64	Columbus, Delaware & Marion Ry. Co			Chaseland		
65	Do	GTD	Marion	Marion	Marion	
66	Do			Prospect		
67	Do			Stratford		
68	Columbus Railway, Power & Light Co			Gay Street	Columbus	
69	Do			McMillan Avenue	do	
70	Do			Milo	do	
71	Do	GTD	Columbus and vicinity	Mound Street	do	
72	Do			Seventeenth Street	do	
73	Do			Spring Street	do	
	Commonwealth Power, Railway & Light Co	H				
74	Springfield Light, Heat & Power Co	GD	Springfield	Springfield	Springfield	
75	Crawford County Gas & Electric Co	GD	Crestline	Crestline	Crestline	
76	Cygnet Electric Light Co			Cygnet		
77	Dayton, Covington & Piqua Traction Co	GD		West Milton	West Milton	
78	Dayton Power & Light Co		Shiloh, Carrmonte	Cedarville	Cedarville	
79	Do		Cedarville, Clifton, Yellow Springs.	Clifton	Clifton	Little Miami
80	Do		Trotwood, Fort McKinley, Harsham.	Dayton	Dayton	
81	Do	GTD	Fairfield, Osborn, New Carlisle.	Osborn	Osborn	
82	Do		Belmont, Alpha, Trebeins, Xenia.	Piqua	Piqua	
83	Do		Oakwood, Dayton, Wilmington.	Wilmington	Wilmington	
84	Delaware Electric Light, Heat & Power Co	GD	Delaware	Delaware	Delaware	
85	Delta Electric Light Co	GD	Delta	Delta	Delta	
86	Deshler Light & Power Plant			Deshler		
87	Dillonvale Heat, Light, Power & Water Co	GD	Dillonvale and Mount Pleasant.	Dillonvale	Dillonvale	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

OHIO—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
20			100	40		30				Mc.
21					90	70				Mc.
22			250	250		295				M. Mc.
23									Scioto Valley Traction Co	Mc.
24	Private	6,666				5,000		$0.03–$0.01		M. Mc. C.
25										S.
26			180	250	50	200				Mc.
27			200	205		175				Mc.
28			2,600	3,620		3,300				M. Mc.
29									North Western Ohio Ry. & Power Co.	M. Mc.
30			1,500	3,270		2,450				M. Mc.
31			900	1,100		700				M. Mc.
32										S.
33			100	65	(40)					Mc.
34			165	100		55				Mc.
35										S.
36									Greenville Electric Light & Power Co.	Mc.
37										S.
38									Trumbull Public Service Co	Mc.
39	Private	230	80	65		230	$0.10	.05		Mc. C.
40			90	85		40				Mc.
41										S.
42			375	165	165	200				Mc.
43		80	80	80	18	35	.10	.10		Mc. C.
44			(100)	100		40				Mc.
45			100	125		100				Mc.
46			250	330		180				Mc.
47			34,800	135,700		101,150				M. Mc.
48			200	200		185				Mc.
49			1,600	2,500		300				M. Mc.
50			800	1,500		1,000				M. Mc.
51			450	450		475				M. Mc.
52			80	75		40				Mc.
53			960	200		150				Mc. M.
54									Greenville Electric Light & Power Co.	Mc.
55					255	320				Mc.
56			1,000	1,250		800				M. Mc.
57			2,200	4,900		3,720				M. Mc.
58			4,000	11,500		7,000				M. Mc.
59			375	250		450				M. Mc.
60			2,700	3,000		2,300			Cleveland, South Western & Columbus Ry. Co.	M. Mc.
61										Mc.
62			15,625	38,930		29,210				M. Mc.
63										S.
64										M.
65			2,500	5,330		3,950				Mc.
66										
67			2,000	4,330		3,200				Mc.
68			1,761	(4,300)		2,560				M. Mc.
69			700	(400)		250				Mc.
70			(225)	(1,370)		825				Mc.
71			900	(1,100)		650				Mc.
72			2,082	(3,500)		2,100				Mc.
73			6,900	(24,000)		14,350				Mc.
74			4,000	6,000		4,500				M. Mc.
75			250	250		110				Mc.
76										S.
77			625	500		350				M. Mc.
78			200	90		(55)				M. Mc.
79	Private	100				130	.12			Mc. C.
80			9,100	17,500		13,000				Mc.
81			200	160		90				Mc.
82			1,000	1,670		1,350				Mc.
83			600	700		300				Mc.
84			(300)	400		400				M. Mc.
85			350	425		195				Mc.
86										S.
87			300	300		200				Mc.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

OHIO—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
	Doherty Operating Co	M				
88	Alliance Gas & Power Co	GD	Alliance	Alliance	Alliance	
89	Elyria & Lorain Electric Properties	GD	Elyria, Lorain, Olmstead, and South Amherst.	Elyria	Elyria	
90	Massillon Electric & Gas Co	GD	Massillon Canal, Fulton	Massillon	Massillon	
91	Do	GD	Orrville, Navarre, Dalton	Orrville	Orrville	
92	Toledo Railways & Light Co	GTD	Toledo and West Toledo	Toledo	Toledo	
93	Toledo & Western R. R. Co	GTD		Sylvania	Sylvania	
94	Trumbull Public Service Co	GD	Warren, Niles, Hiram, Leavittsburg, Windham, Garrettsburg, Phalanx Station, and Newton Falls.	East Fork	Newton Falls	East Fork Mahoning.
95	Do			Leavittsburg	Leavittsburg	
96	Do			West Fork	Newton Falls	West Fork Mahoning.
97	Do			Warren	Warren	
98	Do			do	do	
99	Dover Electric Light & Power Plant			Dover		
100	Dresden Electric Light Plant	D	Dresden	Dresden		
101	Early Light Co			Ridgeway		
102	East Liberty Light Co			East Liberty		
103	East Liverpool Traction & Light Co	GTD	East Liverpool	East Liverpool	East Liverpool	
104	Do			Fallston	Fallston	
105	Do			Steubenville	Steubenville	
106	Eaton Lighting Co	GD	Eaton	Eaton	Eaton	
107	Edgerton Electric Lighting System	GD	Edgerton, Edon, Melbern, Mina, and Blakesly.	Edgerton	Edgerton	
108	Electric Light & Power Co	GD	Newton Falls	Newton Falls	Newton Falls	
109	Electric Light Co	GD	Ottawa and Glendorf	Ottawa	Ottawa	
110	Electric Power, Light & Ice Co	GD	Jefferson	Jefferson	Jefferson	
	Emanuel, Albert, Co	M				
111	Sidney Electric Co	GD	Sidney and vicinity	Sidney	Sidney	Mosquito Creek
	Federal Power & Light Co	H				
112	Delphos Electric Light & Power Co	GD	Delphos	Delphos	Delphos	
113	Urbana Light Co	GD	Catawba, Mutual, Urbana, Woodstock.	Urbana	Urbana	
114	Van Wert Public Service Co	GD	Van Wert, Convey, and Ohio City.	Van Wert	Van Wert	
115	Ferry, J. A., Light Plant	GD	Fayetteville	Fayetteville	Fayetteville	
116	Franklin Electric Light Co	D	Franklin	Franklin		
117	Frazeysburg Electric Light Plant	GD	Frazeysburg	Frazeysburg	Frazeysburg	
118	Gallipolis Electric & Power Co	GD	Gallipolis	Gallipolis	Gallipolis	
119	Gibsonburg Electric Light & Telephone Co	GD	Gibsonburg	Gibsonburg	Gibsonburg	
120	Gilmore Light & Power Co	D	Beach City	Beach City		
121	Green Spring Electric Light & Power Co	GD	Green Spring	Green Spring	Green Spring	
122	Greenville Electric Light & Power Co	HGD	Greenville, Bradford, Brookville.	Greenville	Greenville	
123	Broovkille & Lewisburg Lighting Co	D	Lewisburg and vicinity			
124	Greenville Gas Light Co			Greenville		
125	Guiusler Electric Light & Power Co	GD	Bellville	Bellville	Bellville	
126	Do	GD	Junction City	Junction City	Junction City	
127	Hamilton Utilities Co	GD	Hamilton	Hamilton	Hamilton	
128	Hardin-Wyandot Lighting Co	GD	Kenton, Forest, Dunkirk, and Upper Sandusky.	Kenton	Kenton	
129	Do			Upper Sandusky	Upper Sandusky	
130	Harrison Electric & Water Co	GD	Harrison	Harrison	Harrison	
131	Hicksville Electric Light, Heat & Power Co	GD	Hicksville	Hicksville	Hicksville	
132	Hillsboro Light & Fuel Co	GD	Hillsboro	Hillsboro	Hillsboro	
133	Hocking Electric Power Co	GD	Athens	Athens	Athens	
134	Do	GD	Nelsonville	Nelsonville	Nelsonville	
	Hocking Valley R. R. Co	GTD				
135	(Lessor, Wellston & Jackson Belt Ry.)	L		Wellston	Wellston	
136	Interurban Electric Light Co	D	Madeira	Madeira	Madeira	
137	Jamestown Electric Light Co	GD	Jamestown	Jamestown	Jamestown	
138	Jordan & Co. Light Plant			North Lewisburg		
139	Kalida Light Plant	D	Kalida	Kalida	Kalida	
140	Kanawha Traction & Electric Co	GD	Beverly	Beverly		Muskingum
141	Do	GD	Marietta & Lowell	Marietta	Marietta	
142	Kinsman Electric Co	GD	Kinsman	Kinsman	Kinsman	
143	Konst & Moore Light Plant	GD	Continental	Continental	Continental	
144	Kunkle Light & Power Co			Kunkle		
145	La Belle Iron Works	GD		Steubenville	Steubenville	
146	Lake Erie, Bowling Green & Napoleon Ry. Co	GTD	Bowling Green and Tontogany.	Bowling Green	Bowling Green	
147	Lake Shore Electric Ry. Co	HGTD	Bellevue, Vermilion, Bay Village, Berlin Heights, Castalia, Milan.	Cleveland	Cleveland	
148	Peoples Light & Power Co	D	do	do	do	
149	Lancaster Electric Light Co			Lancaster		
150	Leetonia Electric Co	D	Leetonia	Leetonia	Leetonia	
151	Leipsic Electric Light Plant			Leipsic		
152	Lewisburg Lighting Co	D	Lewisburg	Lewisburg	Lewisburg	
153	Lexington Electric Light & Power Co	D	Lexington	Lexington	Lexington	
154	Liberty Mill Co	D	East Liberty	East Liberty		
	Light & Development Co. of St. Louis	H				
155	Oberlin Gas & Electric Co	GD	Oberlin	Oberlin	Oberlin	
156	Ravenna Gas & Electric Light Co	GD	Ravenna	Ravenna	Ravenna	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

OHIO—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
88			1,400	2,400		1,800				M. Mc.
89		500	2,500	3,500		4,100				M. Mc.
90			1,093	3,000		2,400				M. Mc.
91			225	225		210				M. Mc.
92			19,100	48,500		36,200				M. Mc.
93			1,040	2,000		1,380				M. Mc.
94		400				300				M. Mc. C.
95		400				300				M. C.
96		400				300				Mc. C.
97			2,100	3,650		2,700				Mc.
98					350	250				Mc.
99										S.
100										Mc.
101										S.
102										S.
103			3,300	10,200		7,875				Mc.
104		330	1,680	1,900		2,030				Mc.
105			3,000	2,000		1,500				M.
106			700	350		270				Mc.
107			200	400		150				Mc.
108			100	100		60				Mc.
109			300	300		150				Mc.
110					245	125				Mc.
111	Private	145	500	600		550	$0.09 –$0.04	$0.04–$0.017	Western Ohio Ry. Co.	Mc. C.
112			1,200	2,500		1,500			Van Wert Public Service Co.	Mc.
113			502	450		350				Mc.
114			700	500		400				Mc.
115					10	8				Mc.
116									Middletown Gas & Electric Co.	Mc.
117					25	25				Mc.
118			300	380		300				Mc.
119			120	100		(60)				Mc.
120									Northern Ohio Traction & Light Co.	Mc.
121					80	47½				M. Mc.
122			600	1,330		1,000				M.
123										M.
124										Mc.
125					40	50				Mc.
126					50	30				M. Mc.
127			250	350		75				M. Mc.
128			600	820		650				M. Mc.
129			200	250		165				M. Mc.
130			175	230		290				Mc.
131			240	325		345				M. Mc.
132			350	800		650				M. Mc.
133			600	325		150				M. Mc.
134			600	1,600		1,012				Mc.
135			450	450		350			Cincinnati & Columbus Traction Co.	Mc.
136										Mc.
137			160	160		100				S.
138									Ohio Electric Ry. Co.	Mc.
139						135	.075– .04			Mc. C.
140	Government	175				2,250	.075– .035	.04– .02		C.
141	Private		3,000	3,000						Mc.
142		70			40	54				Mc.
143			300	275		225				S.
144										Mc.
145			5,000	2,800		2,550				M. Mc.
146			600	1,200		1,250				M. Mc.
147			6,950	11,000		7,800				M. Mc.
148										S.
149									Youngstown & Ohio River R. R. Co.	Mc.
150										S.
151									Greenville Electric Light & Power Co.	Mc.
152									Smith Gas Power Co.	Mc.
153										Mc.
154										M. Mc.
155			1,108	600		410				M. Mc.
156			450	600		500				

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

OHIO—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
157	Logan Light & Power Co			Logan		
158	Loveland Light & Water Co	GD	Loveland, Twightwee, Branch Hill.	Loveland	Loveland	
159	McConnelsville-Malta Electric Co	GD	McConnelsville and Malta	Malta	Malta	
160	McCormick, J. B., Light Plant			Fredericksburg		
161	McKee Light & Power Co	D	Sebring	Sebring	Sebring	
162	Malvern Milling & Light Co			Malvern		
163	Mantua Light, Heat & Power Co	GD	Mantua	Mantua	Mantua	
164	Marblehead Power Co	GD	Marblehead and Lakeside	Marblehead	Marblehead	
165	Marysville Light & Water Co	GD	Marysville	Marysville	Marysville	
166	Mechanicsburg Light & Power Co	GD	Mechanicsburg	Mechanicsburg	Mechanicsburg	Little Darby Creek
167	Medina Electric Light Plant	GD	Medina	Medina	Medina	
168	Middlefield Electric Light & Power Plant			Middlefield		
169	Middletown Gas & Electric Co	GD	Middletown	Middletown	Middletown	
170	Middletown Lighting Co			do		
171	Mingo Junction Light Co	D	Mingo Junction, Brilliant, Deandale.	Mingo Junction	Mingo Junction	
172	Mount Blanchard Light & Water Co	GD	Mount Blanchard	Mount Blanchard	Mount Blanchard	
173	Mount Eaton Milling & Light Co			Mount Eaton		
174	Mount Gilead Water, Light, Heat & Power Co	GD	Mount Gilead	Mount Gilead	Mount Gilead	
175	Mutual Electric Light Co	GD	Middleport	Middleport	Middleport	
	National Gas, Electric Light & Power Co	H				
176	Bucyrus Light & Power Co	GD	Bucyrus	Bucyrus	Bucyrus	
177	New Comerstown Light, Heat & Power Co	GD	New Comerstown	New Comerstown	New Comerstown	
	New Jersey General Security Co	H				
178	Kent Water & Light Co	GD	Kent	Kent	Kent	
179	New Lisbon Gas Co	GD	Lisbon	Lisbon	Lisbon	
180	New Madison Lighting Co	D	New Madison	New Madison	New Madison	
181	North Baltimore Service Co., The	GD	North Baltimore	North Baltimore	North Baltimore	
182	Northern Ohio Traction & Light Co	GTD	Akron	Cuyahoga Falls	Cuyahoga Falls	Cuyahoga River
183	Do			Gorge	Canton	
184	Ohio Electric Railway Co			Hecron	Hebron	
185	Do	HGT		Lindenwald		
186	Do			Medway	Medway	
187	Do			Zanesville	Zanesville	
188	Do		Zanesville	do	do	
189	Lima Electric Railway & Light Co	GTD	Lima	Lima	Lima	
190	Ohio Pail Co	GD	Middlefield	Middlefield	Middlefield	
191	Ohio Quarries Co			Cleveland		
192	Ohio River Electric Railway & Power Co	HGTD		Pomeroy	Pomeroy	
193	Pomeroy & Middleport Electric Co	D	Pomeroy	do	do	
	Ohio & Western Utilities Co	H				
194	Chillicothe Electric Railroad, Light & Power Co.	GTD	Chillicothe	Chillicothe	Yoctaugee Park	
195	Peoples Electric Co	GD	Morrow	Morrow	Morrow	
196	Perrysville Electric Light Co	GD	Perrysville	Perrysville	Perrysville	
197	Pilliod Light & Power Co	GD	Grand Rapids and Weston	Grand Rapids	Grand Rapids	
198	Pointer, A. A., Light Plant	GD	Antwerp	Antwerp	Antwerp	
199	Portsmouth Street Railroad & Light Co	GTD	Portsmouth	New Boston	New Boston	
200	Prairie Depot Electric Plant	D	Prairie Depot	Prairie Depot	Prairie Depot	
201	Prospect Electric Light & Power Co	GD	Prospect	Prospect	Prospect	
202	Put-in-Bay Improvement Co			Put-in-Bay		
	Republic Railway & Light Co	H				
203	Youngstown Consolidated Gas & Electric Co	GD	Youngstown, Girard, Struthers, Hubbard, and Lowellville.	Lowellville	Lowellville	
204	Do			Youngstown	Youngstown	
205	Resler Electric Light & Power Co	GD	Caledonia	Caledonia	Caledonia	
206	Richwood Light, Heat & Power Co	GD	Richwood	Richwood	Richwood	
207	Ripley Gas Light & Coke Co	GD	Ripley	Ripley	Ripley	
208	Rockford Electric Light Co	GD	Rockford, Wren, Hillshire	Rockford	Rockford	
209	Rocky River Water, Light & Power Co	GD	Rocky River	Rocky River	Rocky River	
210	Rutschaw Electric Plant	GD	Helena	Helena	Helena	
211	Salem Electric Light & Power Co	GD	Salem	Salem	Salem	
212	Salineville Electric Light, Heat, & Power Co	GD	Salineville	Salineville	Salineville	
213	Sandusky, Norwalk & Mansfield Electric Ry. Co	D		Norwalk		
214	Sandusky River Power Co			Fremont		
215	Shank, D. C., & Co. Light Plant	GD		Pandora	Pandora	
216	Sherodsville Electric Light Co			Sherodsville		
217	Slauser, J. A., Lumber Co	GD	La Rue	La Rue	La Rue	
218	Smith Gas Power Co			Lexington		
219	Southeastern Ohio Railway Light & Power Co	GD		Elizabeth	Elizabeth	
220	Springfield, Troy & Piqua Ry. Co	GD		Springfield	Springfield	
221	Springfield & Xenia Ry. Co	TD		do		
222	Stark Electric R. R. Co	GTD	Alliance	Alliance	Lake Park	
223	Star Electric Co			Cleveland		
224	Steubenville & East Liverpool Railway & Light Co		Steubenville, Toronto	Steubenville	Steubenville	
225	Stillwater Valley Electric Plant	GD	West Milton, Potsdam, Philipsburg.	West Milton	West Milton	Stillwater River
226	Stockport Milling Co			Stockport		
227	Sunbury Electric Light Plant	GD	Sunbury	Sunbury	Sunbury	
228	Toledo, Bowling Green & Southern Transportation Co.	GTD	Findlay	Findlay	Findlay	
229	Toledo, Fostoria & Findlay Ry. Co	GTD		Fostoria	Fostoria	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

OHIO—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
157										S.
158			400	400		300				M.
159		260			75	180				M.
160										S.
161									Stark Electric Co.	M.
162										S.
163			150	80		62½				M.
164			(100)	135		112				Mc.
165			800	500		550				M. Mc.
166	Private	150	150	150		175		$0.10-$0.05		Mc. C.
167			200	175		175				Mc.
168										S.
169			760	2,400	500	2,900				Mc.
170										S.
171									Steubenville & Wheeling Traction Co.	Mc.
172					100	37½				Mc.
173										S.
174			280	170		150				Mc.
175			125	100	150	260				Mc.
176			225	275	500	570				Mc.
177			(400)	450		225				Mc.
178			500	725		356				M. Mc.
179			120	150	100	(150)			Youngstown & Ohio River R. R. Co.	Mc.
180									Greenville Light & Power Co.	Mc.
181			300	400		240				Mc.
182	Private	2,270				2,175	$0.08 -$0.03	.05- .015		M. C. Mc.
183	Do.		16,600	31,000		33,000				M. C. Mc.
184			2,620	(5,100)		3,100				M. Mc.
185			1,000	(8,800)		5,250				Mc.
186			3,825	(8,900)		5,350				Mc.
187			1,200	3,000		2,750				C. Mc.
188		700				750	.08 - .025	.06- .01		M. C.
189			2,650	2,000		2,525				M. Mc.
190			80	60		60				Mc.
191										S.
192			600	500		300				Mc.
193									Ohio River Electric Railway & Power Co.	M. Mc.
194			750	1,500		1,420				M. Mc.
195		150	100	100		115				Mc.
196			50	70		(42)				Mc.
197			368	125	225	100				Mc.
198			250	230		170				Mc.
199			1,500	2,400		1,800				M. Mc.
200										Mc.
201			70	60		(35)			Columbus, Delaware & Marion Ry. Co.	Mc.
202										S.
203			6,700	16,330		12,000				M. Mc.
204										M. Mc.
205			120	75		60				Mc.
206			150	150		150				Mc.
207			125	125		120				M. Mc.
208			150	185		265				Mc.
209			120	70		50				Mc.
210			35	25		(15)				Mc.
211					1,100	600				Mc.
212			200	200		150				Mc.
213									Cleveland Southwestern & Columbus Ry. Co.	M.
214										Mc.
215			100	85		70				S.
216										Mc.
217			100	120		60				M. Mc.
218										
219			1,200	(2,800)		1,700				M. Mc.
220			1,200	1,700		1,080				M. Mc.
221									Springfield, Troy & Piqua Ry. Co.	M. Mc.
222			1,400	3,070		2,300				S.
223										M. Mc.
224			3,000	3,330		2,500				Mc. C.
225	Private	165			100	150	.125- .10	.05		S.
226										Mc.
227					85	50				M. Mc.
228			1,500	3,000		4,000				
229			800	800		500			Lake Shore Electric Ry. Co.	M. Mc.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

OHIO—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
230	Toledo & Indiana R. R. Co	GTD	Toledo and Stryker	Stryker	Stryker	
231	Twin City Light & Power Co			Sugar Creek		
232	Union Light & Water Co	GD	Milford Center	Milford Center	Milford Center	
233	United Light & Power Co	GD	Geneva, Madison, Unionville	Geneva	Geneva	
	United Public Utilities Co. of Delaware	H				
234	Defiance Gas & Electric Co	GD	Defiance	Defiance	Defiance	
235	Maumee Valley Electric Co		Suburban Light & Power Co.			
236	Suburban Light & Power Co					
237	Valley Light & Power Co	D	Maumee, Perrysburg, Swanton and vicinity.	Maumee		
	United Service Co	H				
238	Coshocton Light & Heat Co	GTD	Coshocton, Roscoe	Coshocton	Coshocton	
239	Do			Roscoe	Roscoe	
240	Ohio Service Co	GD	Cambridge, and Byesville	Cambridge	Cambridge	
241	Do	GD	New Philadelphia, Canal Dover, Dennison, Uhrichsville.	New Philadelphia	New Philadelphia	Tuscaranas
242	Do	GD	Strasburg	Strasburg	Strasburg	
243	United States (Army)	GTD	Zanesville and vicinity	Dam No. 10	Zanesville	Muskingum
244	Do					
245	Do					
246	Wadsworth Light & Water Co	GD	Wadsworth	Wadsworth	Wadsworth	
247	Washington Gas & Electric Co	GD	Washington, Bloomingburg, Jeffersonville, and Holland.	Washington Court-house.	Washington Court-house.	
248	Waynesburg Electric Co			Waynesburg		
	Western Ohio R. R. Co	GD				
249	(Lessor, Western Ohio Ry. Co.)	L	Rawson, Mount Cory, Anna, Botkins, and Sidney.	St. Marys	St. Marys	
250	West Liberty Light & Power Co	D	West Liberty	West Liberty	West Liberty	
251	West Salem Electric Light Plant			West Salem		
252	West Unity Power & Light Co	GD	West Unity, Kunkle, and Pioneer.	West Unity	West Unity	
253	White Oak Milling Co			Rushsylvania		
254	Williams Light Plant	GD	Lodi	Lodi	Lodi	
255	Winchester Electric Light & Power Co			Winchester		
256	Windham Electric Co	D	Windham	Windham		
257	Woodville Electric Light Co			Woodville		
258	Wooster Electric Co	GD	Wooster	Wooster	Wooster	
259	Youngstown & Ohio River R. R. Co	GT	East Liverpool Traction & Light Co.	West Point	West Point	

B.—MUNICIPAL PLANTS.

260	GD	Amherst and North Amherst	Amherst	Amherst	
261	D	Anna	Anna	Anna	
262	GD	Arcadia	Arcadia	Arcadia	
263	GD	Arcanum	Arcanum	Arcanum	
264	GD	Arlington	Arlington	Arlington	
265	GD	Ashtabula	Ashtabula	Ashtabula	
266	GD	Attica	Attica	Attica	
267	GD	Bainbridge	Bainbridge	Bainbridge	
268	GD	Batavia	Batavia	Batavia	
269	GD	Belle Center	Belle Center	Belle Center	
270	GD	Bellefontaine	Bellefontaine	Bellefontaine	
271	GD	Berea	Berea	Berea	
272	D	Bethel	Bethel	Bethel	
273	GD	Blanchester	Blanchester	Blanchester	
274	GD	Bluffton	Bluffton	Bluffton	
275	GD	Bradner and Risingsun	Bradner	Bradner	
276	GD	Bryan	Bryan	Bryan	
277	GD	Buckland	Buckland	Buckland	
278	GD	Butler	Butler	Butler	
279	GD	Caldwell	Caldwell	Caldwell	
280	GD	Canal Dover	Canal Dover	Canal Dover	
281	GD	Carey	Carey	Carey	
282	GD	Celina	Celina	Celina	
283	GD	Chardon	Chardon	Chardon	
284	GD	Chicago Junction	Chicago Junction	Chicago Junction	
285	GD	Cleveland	Cleveland	Cleveland	
286	GD	Clyde	Clyde	Clyde	
287	GD	Columbiana	Columbiana	Columbiana	
288	GD	Columbus	Columbus	Columbus	
289	GD	Columbus Grove	Columbus Grove	Columbus Grove	
290	GD	Conneaut	Conneaut	Conneaut	
291	D	Creston	Creston	Creston	
292	GD	Cuyahoga Falls	Cuyahoga Falls	Cuyahoga Falls	
293	GD	Degraff	Degraff	Degraff	
294	GD	East Palestine	East Palestine	East Palestine	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

OHIO—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
230			2,000	2,000		1,200				M. Mc.
231										S.
232			80	80	100	60				Mc.
233			200	225		(130)				M.
234			500	450		450				M. Mc.
235		3,700				2,300				M.
236										M.
237									Maumee Valley Electric Co. & Anglaize Power Co.	Mc.
238			2,900	6,300		4,800				Mc.
239		1,330				1,000				M.
240			1,200	1,600		1,300			Cosbocton Light and Heating Co.	M. Mc.
241		300	1,000	2,130		1,700	$0.10 -$0.03	$0.09-$0.01		Mc. C.
242			160	160		85				M. Mc.
243	Government	1,252	1,150	3,000		3,000	.08 - .025	.06- .01		C.
244										
245										
246			250	420		300				Mc.
247			550	450		350				Mc.
248										M. Mc.
249			5,000	11,330		8,500				M. Mc.
250									Ohio Electric Ry. Co.	Mc.
251										S.
252			125	114		65				Mc.
253										S.
254			60	50	50	80				Mc.
255										S.
256									Trumbull Public Service Co.	Mc.
257										S.
258			850	750		325	.125- .07	.05- .018		M. Mc.
259			2,000	3,000		2,000				M. Mc.
	Total, A	19,773	260,472	555,674	5,938	436,321				

B.—MUNICIPAL PLANTS.

260					275	175			Geo. E. Milligan Co.	Mc.
261									Western Ohio R. R. Co.	Mc.
262			100	40		30				Mc.
263			150	225		195				Mc.
264			100	100	100	75				Mc.
265			1,024	1,950		1,415				Mc.
266			100	80		75				Mc.
267			250	125		165				Mc.
268			200	100		75				Mc.
269			160	85		60				Mc.
270					450	320				Mc.
271			375	550		480				Mc.
272									Cincinnati, Georgetown & Portsmouth R. R. Co.	Mc.
273			150	125		150				Mc.
274			235	225		140				Mc.
275			160	150		75				Mc.
276				900		675				Mc.
277					19	25				Mc.
278			110	90		60				Mc.
279					150	(90)				Mc.
280					100	150				Mc.
281			285	325		200				Mc.
282			150	450		295				Mc.
283			250	200		90				Mc.
284			250	215		300				Mc.
285			1,000	20,000		15,000				Mc.
286			400	360		300				Mc.
287			300	300		190				Mc.
288			1,800	5,600		4,200				Mc.
289			250	325		300				Mc.
290			700	875		525				Mc.
291									Cleveland, Southwestern & Columbus R. R. Co.	Mc.
292			250	500		315				Mc.
293			160	170		60				Mc.
294			250	280		90				Mc.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

B.—**OHIO**—Continued.

B.—MUNICIPAL PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
295		D	Elmore	Elmore	Elmore	
296		GD	Fort Recovery	Fort Recovery	Fort Recovery	
297		GD	Galion	Galion	Galion	
298		GD	Georgetown	Georgetown	Georgetown	
299		GD	Germantown	Germantown	Germantown	
300		GD	Glouster	Glouster	Glouster	
301		GD	Granville	Granville	Granville	
302		GD	Greenfield	Greenfield	Greenfield	
303		GD	Greenwich	Greenwich	Greenwich	
304		GD	Hamilton	Hamilton	Hamilton	
305		GD	Hiram	Hiram	Hiram	
306		GD	Holgate	Holgate	Holgate	
307		GD	Hubbard	Hubbard	Hubbard	
308		GD	Hudson	Hudson	Hudson	
309		GD	Huron	Huron	Huron	
310		GD	Jackson	Jackson	Jackson	
311		GD	Johnstown	Johnstown	Johnstown	
312		D	Kunkle	Kunkle	Kunkle	
313		GD	Lebanon	Lebanon	Lebanon	
314		GD	London	London	London	
315		GD	Loudonville	Loudonville	Loudonville	
316		D	Lowellville	Lowellville	Lowellville	
317		GD	Lynchburg	Lynchburg	Lynchburg	
318		GD	McArthur	McArthur	McArthur	
319		GD	McComb	McComb	McComb	
320		GD	Manchester	Manchester	Manchester	
321		GD	Marietta	Marietta	Marietta	
322		GD	Martins Ferry	Martins Ferry	Martins Ferry	
323		GD	Miamisburg	Miamisburg	Miamisburg	
324		D	Milan	Milan	Milan	
325		GD	Mineral Center	Mineral Center	Mineral Center	
326		GD	Minerva	Minerva	Minerva	
327		GD	Minster	Minster	Minster	
328		GD	Monroeville	Monroeville	Monroeville	
329		GD	Montpelier	Montpelier	Montpelier	
330		GD	Mount Sterling	Mount Sterling	Mount Sterling	
331		GD	Napoleon	Napoleon	Napoleon	
332		GD	Nelsonville	Nelsonville	Nelsonville	
333		GD	Newark	Newark	Newark	
334		GD	New Bremen	New Bremen	New Bremen	
335		GD	New London	New London	New London	
336		GD	New Richmond	New Richmond	New Richmond	
337		GD	Niles	Niles	Niles	
338		GD	Norwood	Norwood	Norwood	
339		D	Oakharbor	Oakharbor	Oakharbor	
340		GD	Oxford	Oxford	Oxford	
341		GD	Painesville	Painesville	Painesville	
342		GD	Paulding	Paulding	Paulding	
343		GD	Payne	Payne	Payne	
344		D	Pemberville	Pemberville	Pemberville	
345		D	Pioneer	Pioneer	Pioneer	
346		GD	Plain City	Plain City	Plain City	
347		GD	Plymouth	Plymouth	Plymouth	
348		GD	Reading	Reading	Reading	
349		GD	Sabina	Sabina	Sabina	
350		GD	St. Bernard	St. Bernard	St. Bernard	
351		GD	St. Clairsville	St. Clairsville	St. Clairsville	
352		GD	St. Marys	St. Marys	St. Marys	
353		GD	St. Paris	St. Paris	St. Paris	
354		GD	Shelby	Shelby	Shelby	
355		GD	Sherwood	Sherwood	Sherwood	
356		GD	South Vienna	South Vienna	South Vienna	
357		D	Spencerville	Spencerville	Spencerville	
358				Stryker		
359		GD	Sycamore	Sycamore	Sycamore	
360		GD	Tippecanoe City	Tippecanoe City	Tippecanoe City	
361		GD	Troy	Troy	Troy	
362		GD	Versailles	Versailles	Versailles	
363		GD	Wapakoneta	Wapakoneta	Wapakoneta	
364		GD	Waverly	Waverly	Waverly	
365		GD	Waynesville	Waynesville	Waynesville	
366		GD	Wellington	Wellington	Wellington	
367		GD	Wellston	Wellston	Wellston	
368				Westerville		
369		GD	West Mansfield	West Mansfield	West Mansfield	
370		GD	Williamsburg	Williamsburg	Williamsburg	
371		D	Willoughby	Willoughby	Willoughby	
372		GD	Woodsfield	Woodsfield	Woodsfield	
373		D	Yellow Springs	Yellow Springs	Yellow Springs	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued

OHIO—Continued.

B.—MUNICIPAL PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
295									Northwestern Ohio Railway & Power Co.	Mc.
296			300	85		125				Mc.
297			1,100	750		500				Mc.
298			300	125		70				Mc.
299			250	375		148				Mc.
300			(150)	225		100				Mc.
301			200	42		(25)				Mc.
302			(600)	760		400				Mc.
303			220	90		70				Mc.
304			1,000	1,500		1,000				Mc.
305									S. H. Bruce	Mc.
306			170	250		75				Mc.
307			160	215		150				Mc.
308					150	100				Mc.
309			200	220		200				Mc.
310			300	400		250				Mc.
311			120	60		35				Mc.
312									West Unity Power & Light Co.	Mc.
313			600	450		270				Mc.
314			450	305		220				Mc.
315			(100)	160		35				Mc.
316									Youngstown Consolidated Gas & Electric Co.	Mc.
317			180	120		100				Mc.
318			75	60		35				Mc.
319			225	125		62½				Mc.
320			300	125		90				Mc.
321			400	350		75				Mc.
322			600	1,100		800				Mc.
323			450	550		400				Mc.
324									Lake Shore Electric Ry. Co.	Mc.
325			80	75		50				Mc.
326			100	150		80				Mc.
327					300	187½				Mc.
328			150	150		50				Mc.
329			460	385		275				Mc.
330			300	210		150				Mc.
331	Private	175	490	400		490	$0.07–$0.04	$0.07–$0.04		Mc. C.
332			525	488		435				Mc.
333			150	350		260				Mc.
334			160	110	75	125				Mc.
335			110	215		160				Mc.
336			160	120		60				Mc.
337									Hydro-Electric & Gas Co.	Mc.
338			800	825	300	705				Mc.
339									Northwestern Ohio Railway & Power Co.	Mc.
340			300	200		115				Mc
341			300	500		350				Mc.
342			150	160		160				Mc.
343			200	150		100				Mc.
344										Mc.
345									West Unity Power & Light Co.	Mc.
346			300	160		125				Mc.
347					100	110				Mc.
348			500	400		300				Mc.
349			160	150		100				Mc.
350			500	325		181				Mc.
351			300	250		175				Mc.
352			600	500		300				Mc.
353			200	150		95				Mc.
354			200	450		260				Mc.
355			55	35	55	60				Mc.
356					35	25				Mc.
357										S.
358										Mc.
359			120	80		30				Mc.
360			240	440		150				Mc.
361			760	940		910				Mc.
362			300	350		200				Mc.
363			650	600		300				Mc.
364			300	140		150				Mc.
365			160	125		75				Mc.
366			265	450		300				Mc.
367			400	180		150				S.
368										Mc.
369			250	100		90				Mc.
370			100	100		200				Mc.
371									Cleveland, Painesville & E. R. R. Co.	Mc.
372			250	250	200	170				Mc.
373									Dayton Power & Light Co.	Mc.
	Total, B	175	29,014	53,450	2,309	39,839				

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

OHIO—Continued.

C.—ALL OTHER PLANTS.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
374	Cincinnati, Georgetown & Portsmouth R. R. Co.	G	Electric railways	Lake Allyn	Lake Allyn	
375	Cincinnati, Lawrenceburg & Aurora Electric Street R. R.	G	do	North Bend	North Bend	
376	City Railway Co	G	do	Emily Street	Dayton	
377	Cleveland Railway Co	G	do	Cedar Avenue	Cleveland	
378	Do			Washington Avenue	do	
379	Columbus, Magnetic Springs & Northern Ry. Co.	G	do	Scioto River	Scioto River	
380	Dayton, Springfield & Xenia Southern Ry. Co.	G	do	Shoup Station	Shoup Station	
381	Dayton & Troy Electric Ry. Co	G	do	Tippecanoe City	Tippecanoe City	
382	Gallipolis & Northern Traction Co	G	do	East Gallipolis	East Gallipolis	
383	Interurban Railway & Terminal Co	G	do	Coney Island	Coney Island	
384	Do			South Lebanon	South Lebanon	
385	Lancaster Traction & Power Co	G	do	Fair Avenue	Lancaster	
386	Oakwood Street Ry. Co	G	do	Brown Avenue	Dayton	
387	Ohio Traction Co	G		Cunningsville		
388	Do			Depot Street		
389	Do			Hartwell	Hartwell	
390	Do			Hunt Street		
391	Do			Pendleton		
392	Do			Winton Place		
393	Pennsylvania & Ohio Ry. Co		do	Ashtabula	Ashtabula	
394	Scioto Valley Traction Co	G	do	Rees Station	Rees Station	
395	Tiffin, Fostoria & Eastern Electric Ry. Co	G	do	Bascom	Bascom	

OKLAHOMA.

A.—PUBLIC UTILITY PLANTS.

1	Ada Electric & Gas Co	GD	Ada	Ada	Ada	
2	Alva Light & Power Co	GD	Alva	Alva	Alva	
	American Public Service Co	H				
3	Hugo Ice & Light Co	GD	Hugo	Hugo	Hugo	
4	Okmulgee Ice & Light Co	GD	Okmulgee	Okmulgee	Okmulgee	
5	Antlers Light & Power Co	GD	Antlers	Antlers	Antlers	
6	Armore Ice, Light & Power Co	GD	Ardmore	Ardmore	Ardmore	
7	Boley Light, Power & Manufacturing Co	GD	Boley	Boley	Boley	
8	Broken Arrow Electric Light & Power Co	GD	Broken Arrow	Broken Arrow	Broken Arrow	
	Byllesby, H. M., & Co	M				
9	El Reno Gas & Electric Co	GD	El Reno and Darlington	El Reno	El Reno	
10	Enid Electric & Gas Co	GD	Enid	Enid	Enid	
11	Muskogee Gas & Electric Co	GD	Muskogee and Fort Gibson	Muskogee	Muskogee	
12	Oklahoma Gas & Electric Co	GD	Oklahoma, Britton, and Capitol Hill.	Oklahoma	Oklahoma	
13	Sapulpa Electric Co	GD	Sapulpa	Sapulpa	Sapulpa	
14	Caddo Power Co	GD	Caddo	Caddo	Caddo	
15	Carter Light & Power Co	GD	Carter	Carter	Carter	
16	Chandler Electric Co	GD	Chandler	Chandler	Chandler	
17	Checotah Water, Light & Ice Co	GD	Checotah and vicinity	Checotah	Checotah	
18	Choctaw Railway & Lighting Co	GD	McAlester, Alderson, Krebo, and Daw.	McAlester	McAlester	
19	City Light & Ice Co. of Pryor	GD	Pryor	Pryor	Pryor	
20	Crystal Ice Co	GD	Weleetka	Weleetka	Weleetka	
21	Cushing Electric Light & Power Co	GD	Cushing	Cushing	Cushing	
22	Davis Electric Light Co	GD	Davis	Davis	Davis	
23	Degnan & McConnell Electric Light Co	GD	Wilburton	Wilburton	Wilburton	
	Doherty Operating Co	M				
24	Bartlesville Interurban Ry. Co	GTD	Bartlesville and Dewey	Bartlesville	Bartlesville	
25	Durant Ice & Light Co	GD	Durant	Durant	Durant	
26	Dustin Light & Power Co	GD	Dustin	Dustin	Dustin	
27	Elk City Ice, Fuel & Light Co	GD	Elk City and vicinity	Elk City	Elk City	
28	Fairland Light & Power Co	GD	Fairland	Fairland	Fairland	
	Federal Light & Traction Co	H				
29	Hobart Electric Co	GD	Hobart	Hobart	Hobart	
30	Fort Towson Electric Light & Power Co	D	Fort Towson	Fort Towson	Fort Towson	
31	Foster-Harris Gin & Electric Co	GD	Frederick	Frederick	Frederick	
32	Grandfield Light & Power Co	GD	Grandfield	Grandfield	Grandfield	
33	Gotebo Light & Power Co	GD	Gotebo	Gotebo	Gotebo	
34	Guymon Electric Light & Power Co	GD	Guymon	Guymon	Guymon	
35	Heavener Light & Power Co	GD	Heavener	Heavener	Heavener	
36	Hennessey Electric Light, Power & Ice Co	GD	Hennessey	Hennessey	Hennessey	
37	Henryetta Ice & Light Co	GD	Henryetta	Henryetta	Henryetta	
38	Holdenville Ice & Electric Co	GD	Holdenville	Holdenville	Holdenville	
39	Hominy Ice, Light & Power Co	GD	Hominy	Hominy	Hominy	
40	Indianola Ice, Light & Power Co	GTD	Haileyville & Hartshorne	Haileyville	Haileyville	
41	Kirkpatrick, O. H. (Lessor Ryan Light & Water Co., Munic.)	GD L	Ryan	Ryan	Ryan	
42	Lawton Railway & Light Co	GD	Lawton	Lawton	Lawton	
43	Leflore County Gas & Electric Co	GD	Poteau and Wittleville	Poteau	Poteau	
	Light & Development Co. of St. Louis	H				
44	Talequah Light & Power Co	GD	Talequah	Talequah	Talequah	
45	Madill Ice, Light & Power Co	GD	Madill	Madill	Madill	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

OHIO—Continued.

C.—ALL OTHER PLANTS.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
374			1,800	1,600		1,200				M. Mc.
375			1,000	1,200		800				M. Mc.
376			1,700	3,200		2,000				M. Mc.
377			14,554	27,100		17,700				M. Mc
378										Mc.
379			600	500		300				M. Mc.
380			1,000	1,200		800				M. Mc.
381			1,200	1,000		800				M. Mc.
382			300	425		350				M. Mc.
383			2,100	3,157		1,800				M. Mc.
384			1,050	1,775		(1,050)				M. Mc.
385					250	225				M. Mc.
386			900	800		600				M. Mc.
387										M.
388										Mc.
389										M. Mc.
390			21,825	65,611		48,100				Mc.
391										Mc.
392										M. Mc.
393										M. Mc.
394			2,300	3,600		2,300				M. Mc.
395			500	1,000		1,000				M. Mc.
	Total, C		50,829	112,168	250	79,025				
	Grand total	19,948	340,315	721,292	8,497	555,185				

OKLAHOMA.

A.—PUBLIC UTILITY PLANTS.

1			550	700		500	$0.12 –$0.06	$0.08 –$0.015		M. Mc. C.
2	Private		160	275	225	350	.142– .07	.10 – .05		Mc. C.
3	Private		981	650	225	800	.15 – .06	.08 – .02		M. Mc. C.
4	Do		1,218	950	300	975	.15 – .06	.06 – .015		M. Mc. C.
5			150	125	65	50				Mc.
6	Private		1,200	1,525		905	.16	.08		M. Mc. C.
7			60	100		80				Mc.
8	Private		200	375		205	.10 – .05	.05 – .025		Mc. C.
9	Do		600	950		575	.12 – .05	.05 – .02		M. Mc. C.
10	Do		1,245	1,325		1,500	.15 – .045	.10 – .02		M. Mc. C.
11	Do		3,130	5,350		4,600	.14 – .012	.015– .012		M. Mc. C.
12	Do		4,500	8,500		6,510	.099– .014	.045– .021		M. Mc. C.
13	Do				1,090	750	.12 – .0475	.05 – .017		M. Mc. C.
14			100	125		50				Mc.
15	Private				25	15				C.
16	Do		140	120	60	180	.15 – .08	.06 – .04		Mc. C.
17	Do		350	300		250	.14 – .06	.10 – .04		Mc. C.
18			1,200	1,650		1,480				M. Mc.
19	Private		300	280		150	.14 – .08	.14 – .04		Mc. C.
20			250	225		75				Mc.
21			500	500		300				Mc.
22	Private		60	80		100	.18 – .10	.05 – .02		Mc. C.
23	Do		(200)	210		175	.15 – .09	.10 – .04		Mc. C.
24	Do		1,525	1,420		1,075	.10 – .05	.06 – .02		M. Mc. C.
25	Do		550	875		640	.10 – .07			Mc. C.
26			100	75		100				Mc.
27	Private		400	400		315	.15 – .05	.15 – .02		Mc. C.
28					25	(15)				Mc.
29			300	500		350				M. Mc.
30	Private						.15		Pine Belt Lumber Co.	Mc. C.
31			250	250		175				Mc.
32						37½				Mc.
33					20	15				Mc. C.
34			160	125		75				Mc.
35	Private		120	120		75	.15 – .09	.10 – .04		C.
36			80	120	90	115				Mc.
37			420	450		310				Mc. C.
38	Private		425	300		225	.15 – .07	.055– .03		Mc. C.
39			(100)	100		72				Mc.
40	Private		350	347		150	.12	.10 – .03		Mc. C.
41			300	125		125				Mc.
42			350	550		400				Mc.
43			160	200		135	.10 – .06	.10 – .03		Mc. C.
44			300	200		125	.15 – .03			M. Mc. C.
45			200	150		60				Mc.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

OKLAHOMA—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
46	Maud Electric Light Co		Maud	Maud	Maud	
47	McAlester, Edwards Coal Co	G	Pittsburg Water & Light Co.	Pittsburg	Near Pittsburg	
	Middle West Utilities Co	H				
48	Chickaska Gas & Electric Co	GD	Chickaska	Chickaska	Chickaska	Washita River
49	Public Service Co. of Oklahoma	GD	Atoka	Atoka	Atoka	
50	Do	GDT	Coalgate, Phillips, Lehigh	Coalgate	Coalgate	
51	Do	GD	Guthrie	Guthrie	Guthrie	
52	Do	GD	Lehigh	Lehigh	Lehigh	
53	Do	GD	Tulsa	Tulsa	Tulsa	
54	Do	GD	Vinita	Vinita	Vinita	
55	Minco Electric & Water Co	GD	Minco	Minco	Minco	
56	Norman Milling & Grain Co	GD	Norman	Norman	Norman	
57	Nowata Electric Light & Power Co	GD	Nowata	Nowata	Nowata	
58	Okeene Milling Co	GD	Okeene	Okeene	Okeene	
59	Perkins Electric Light & Power Co	GD	Perkins	Perkins	Perkins	
60	Pioneer Electric & Power Co	GD	Eufaula	Eufaula	Eufaula	
61	Pittsburg Water & Light Co	D	Pittsburg	Pittsburg	Pittsburg	
62	Sand Springs Power, Light & Water Co	GD	Tulsa	Sand Springs	Sand Springs	
63	Shawnee Gas & Electric Co	GTD	Shawnee and Tecumseh	Shawnee	Shawnee	
	Southwestern Cities Electric Co	H				
64	Comanche Light & Power Co	GD	Comanche	Comanche	Comanche	
65	Duncan Electric & Ice Co	GD	Duncan	Duncan	Duncan	
66	Mangum Electric Co	GD	Mangum	Mangum	Mangum	
67	Stigler Light & Power Co	GD	Stigler	Stigler	Stigler	
68	Sulphur Ice, Light & Power Co	GD	Sulphur	Sulphur	Sulphur	
69	Tishomingo Light & Power Co	GD	Tishomingo	Tishomingo	Tishomingo	
70	Washita Electric Power Co	GD	Pauls Valley	Pauls Valley	Pauls Valley	
71	Waurika Ice & Electric Co	GD	Waurika	Waurika	Waurika	
72	Westville Light & Power Co	GD	Westville	Westville	Westville	
73	Woodward Cotton Co	GD	Woodward	Woodward	Woodward	
	Yukon Mill & Grain Co	H				
74	Yukon Electric Co	GD	Yukon	Yukon	Yukon	

B.—MUNICIPAL PLANTS.

75	GD	Anadarko	Anadarko	Anadarko	Washita River
76	GD	Afton	Afton	Afton	
77	GD	Altus	Altus	Altus	
78	GD	Apache	Apache	Apache	
79	GD	Arapaho	Arapaho	Arapaho	
80	GD	Blackwell	Blackwell	Blackwell	
81	GD	Carmen	Carmen	Carmen	
82	GTD	Cherokee and Ingersoll	Cherokee	Cherokee	
83	GD	Claremore	Claremore	Claremore	
84	GD	Clinton	Clinton	Clinton	
85	GD	Collinsville	Collinsville	Collinsville	
86	GD	Cordell	Cordell	Cordell	
87	GD	Custer City	Custer City	Custer City	
88	GD	Durant	Durant	Durant	
89	GD	Edmond	Edmond	Edmond	
90	GD	Fairview	Fairview	Fairview	
91	GD	Foss	Foss	Foss	
92	GD	Granite	Granite	Granite	
93	GD	Grove	Grove	Grove	
94	GD	Helena	Helena	Helena	
95	D	Ingersoll	Ingersoll	Ingersoll	
96	GD	Kingfisher	Kingfisher	Kingfisher	
97	GD	Kiowa	Kiowa	Kiowa	
98	GD	Lindsay	Lindsay	Lindsay	
99	GD	Lone Wolf	Lone Wolf	Lone Wolf	
100	GD	Marietta	Marietta	Marietta	
101	GD	Marlow	Marlow	Marlow	
102	GD	Medford	Medford	Medford	
103	GD	Miami	Miami	Miami	
104	GD	Newkirk	Newkirk	Newkirk	
105	GD	Okemah	Okemah	Okemah	
106	GD	Pawhuska	Pawhuska	Pawhuska	
107	GD	Pawnee	Pawnee	Pawnee	
108	GD	Perry	Perry	Perry	
109	GD	Ponca City	Ponca City	Ponca City	
110	GD	Pond Creek	Pond Creek	Pond Creek	
111	GD	Prague	Prague	Prague	
112	GTD	Purcell and Lexington	Purcell	Purcell	
113	GD	Ralston	Ralston	Ralston	
114	GD	Roff	Roff	Roff	
115	GD	Sallisaw	Sallisaw	Sallisaw	
116	GD	Sayre	Sayre	Sayre	
117	GD	Shattuck	Shattuck	Shattuck	
118	GD	Snyder	Snyder	Snyder	
119	GD	Spiro	Spiro	Spiro	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

OKLAHOMA—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
46										
47	Private		350	75	50	75	$0.15			C.
						50				C.
48	Private	1,200	1,100	1,800		1,355	$0.08 - .02	$0.06 -$0.0125		M. Mc.
49	Do		225	200		115	.15 - .08	.09 - .04		M. Mc. C.
50	Do		375	350		325	.15 - .08	.09 - .02		M. Mc. C.
51	Do		1,050	1,550		1,012	.14 - .08	.09 - .02		M. Mc. C.
52	Do		160	150		100	.15 - .08	.09 - .02		M. Mc. C.
53	Do		3,000	3,340	1,300	3,610	.11 - .06	.09 - .02		M. Mc. C.
54	Do		750	800		500	.14 - .08	.09 - .02		M. Mc. C.
55			160	100		60				
56	Private		350	150	225	440	.15 - .06	.10 - .06		M. C.
57	Do				415	300	.11 - .08	.06 - .05		Mc. C.
58	Do		200	150		60	.15 - .10			Mc. C.
59			50	40		30				Mc. C.
60	Private		200	100		75				Mc.
61	Do						.12 - .06		McAlester-Edwards Coal Co.	Mc. C.
62					1,000	800				Mc. C.
63	Private		1,174	1,450		1,100	.15 - .10	.05 - .015		Mc.
64			375	550	225	575	.15 - .05	.10 - .03		M. Mc. C.
65			275	285		200				M. Mc.
66	Private		550	500		450	.16 - .09	.10 - .03		M. C.
67			125	156		75				M. Mc.
68	Private		375	325		225	.15 - .083			M. Mc. C.
69		200	160	175		362				Mc.
70	Private		300	750		375	.15 - .10	.06 - .0325		M. Mc. C.
71			450	(125)		75				Mc.
72	Private		100	80		60	.15			Mc. C.
73	Do		200	410	160	200	.10 - .08	.07 - .05		Mc. C.
74			220	300		125				Mc.
	Total, A	1,400	35,458	44,513	5,500	37,896				Mc.

B. MUNICIPAL PLANTS.

75	Private	358	410	160		200	$0.10 -$0.04	$0.06 -$0.02		Mc. C.
76	Do		325	220		150	.15 - .045	.06 - .04		Mc. C.
77			150	400		350				Mc.
78	Private		400	125		100				Mc. C.
79					80	75	.15			Mc. C.
80			450	325		225				Mc.
81			200	125		150				Mc.
82	Private		300	325		225	.125- .08	.045		M. Mc. C.
83	Do		325	325		310				Mc. C.
84			450	375		325				Mc.
85			450	330		225	.08 - .03	.05 - .03		Mc. C.
86			250	240		200	.15 - .07	.07 - .025		Mc. C.
87			250	200		125				Mc.
88			300	300		236			Durant Ice & Light Co.	Mc. C.
89	Private		125	100	180	110	.125- .09	.125- .05		Mc. C.
90	Private		300	300		200	.12 - .08	.055- .04		Mc. C.
91			80	75		50				Mc. C.
92			125	150		100				Mc.
93			140	75		50				Mc.
94	Private		125	100		50	.15			Mc. C.
95									City of Cherokee	Mc.
96			200	300		200				Mc.
97			160	100		75				Mc.
98			200	85		50				Mc.
99	Private				50	35	.125			C.
100	Private		290	368		225	.15 - .08			Mc. C.
101	Do				165	100	.12 - .10	.04		Mc. C.
102			300	230		150				Mc.
103	Private		80	130		75	.10 - .05			Mc. C.
104			150	125		40				Mc. C.
105			200	215		135				Mc.
106	Private		575	427		300				Mc. C.
107	Do		420	150		185	.10 - .08	.10 - .03		Mc. C.
108	Do		300	235		140				Mc. C.
109	Do		350	290		175	.09 - .045	.04 - .02		Mc. C.
110	Private		125	100	75	110				Mc. C.
111			160	125		75				Mc.
112	Private		400	400		300	.15 - .09	.10 - .045		Mc. C.
113	Do		(200)	200	125	40	.10			Mc. C.
114			125	110		60				Mc.
115	Private		180	325		225	.15 - .08	.05 - .025		Mc. C.
116			200	205		110	.15			Mc. C.
117			200	108		75	.15			Mc. C.
118			400	550		150				Mc.
119			150	125		300				Mc.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

OKLAHOMA—Continued.

B.—MUNICIPAL PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
120		GD	Stillwater	Stillwater	Stillwater	
121		GD	Stillwell	Stillwell	Stillwell	
122		GD	Stroud	Stroud	Stroud	
123		GD	Talihina	Talihina	Talihina	
124		GD	Thomas	Thomas	Thomas	
125		GD	Tonkawa	Tonkawa	Tonkawa	
126		GD	Wagoner	Wagoner	Wagoner	
127		D	Walter	Walter	Walter	
128		GD	Wapanucka	Wapanucka	Wapanucka	
129		GD	Watonga	Watonga	Watonga	
130		GD	Waukomis	Waukomis	Waukomis	
131		GD	Waynoka	Waynoka	Waynoka	
132		GD	Weatherford	Weatherford	Weatherford	
133		GD	Wetumka	Wetumka	Wetumka	
134		GD	Woodward	Woodward	Woodward	
135		GD	Wynnewood	Wynnewood	Wynnewood	

C.—ALL OTHER PLANTS.

136	Capital Traction Co	G	Electric railway	Oklahoma City	Oklahoma City	
137	Chickasha Street Ry. Co	G	do	Chickasha	Chickasha	
138	Oklahoma Ry. Co	G	do	Belle Isle	Belle Isle	
139	Sapulpa & Interurban Ry. Co	G	do	Sapulpa	Sapulpa	

OREGON.

A.—PUBLIC UTILITY PLANTS.

	American Power & Light Co	H				
1	Pacific Power & Light Co	GTD	Northern Oregon and South Washington.	Astoria	Astoria	
2	Do	GTD	do	Hood River	T. 2 N., R. 10 E.	
3	Do	GTD	Hood River	Powerdale	S. 36, T. 3 N., R. 10 E.	
4	Do	GTD	do	Tygh Valley	S. 7, T. 4 S., R. 14 E.	White River
5	Do	GTD	do	Walla Walla	S. 24, T. 5 N., R. 36 E.	South Fork Walla Walla River.
6	Amity Light & Power Co	D	Amity	Amity		
7	Bandon Power Co	GD	Bandon	Bandon	Bandon	
8	Bend Water, Light & Power Co	GD	Bend	Bend	Bend	Deschutes River
	Byllesby, H. M., & Co	H				
	Oregon Power Co	GTD				
9	(Lessor, Northern Idaho & Montana Power Co.)	L	Albany to Eugene	Albany	Albany	Santiam River
10	Do	L	Coquille and Myrtle Point	Coquille	Coquille	
11	Do	L	Monmouth and Independence.	Dallas	Dallas	
12	Do	L	Marshfield and North Bend	Marshfield	Marshfield	
13	Do	L	Linn and Lane Counties	Springfield		
14	California-Oregon Power Co	GD	South Oregon and northern California.	East Klamath Falls	S. 30, T. 38 S., R. 9 E.	Link River
15	Do	GD	do	Gold Ray	S. 18, T. 36 S., R. 2 W.	Rogue River
16	Do	GD	do	Prospect	S. 6, T. 33 S., R. 3 E.	do
17	Do	GD	do	West Klamath Falls	S. 30, T. 38 S., R. 9 E.	Link River
18	Clatskanie Light & Power Co	GD	Clatskanie	Clatskanie	Clatskanie	Fall Creek
19	Coast Power Co	GD	Tillamook	Tillamook	Tillamook	
20	Columbia River Light & Power Co	GD	Cascade Locks	Cascade Locks		
21	Condon Electric Co	GD	Condon	Condon		
22	Consolidated Electric Light Co	GD	John Day and Canyon City	John Day		
23	Cornucopia Mines Co	GD	Cornucopia	Cornucopia	Cornucopia	Pine Creek
24	Cottage Grove Electric Co	GD	Cottage Grove	Cottage Grove	Cottage Grove	
25	Creswell Electric Light & Power Co	GD	Creswell	Creswell	S. 26, T. 19 S., R. 3 W.	Coast Fork Willamette River.
26	Deschutes Power Co	GD	Prineville and vicinity	Cline Falls	Cline Falls	Deschutes River
27	Do	GD	do	Crooked River	Cove	Crooked River
28	Douglas County Light & Water Co	GD	Douglas County	Winchester	Winchester	
29	Eagle River Electric Power Co	GD		Baker	Baker	
30	Do	GD	Sanger	Sanger	T. 7 S., R. 44 E.	Eagle River
31	Eastern Oregon Light & Power Co	GTD	Bourne, Baker, Hains, North Powder, Union, Cove, La Grande, Alicel, Island City, Imbler, and Elgin.	Cove	T. 3 S., R. 40 E.	Mill Creek
32	Do			Fremont	S. 9, T. 9 S., R. 35 E.	Lake and Lost Creeks.
33	Do			Morgan Lake	T. 3 S., R. 38 E.	Sheep Creek
34	Do			Rock Creek	S. 33, T. 7 S., R. 38 E.	Rock Creek
35	Electric Light & Power Co	GD	Burns	Burns	Burns	Silvies River
36	Elgin Light & Power Co	D	Elgin	Elgin		
37	Enterprise Electric Co	GD	Evans, Enterprise, Lostine, and Wallowa.	Enterprise	S. 14, T. 1 S., R. 42 E.	Wallowa River
38	Do	GD	do	Wallowa		do
39	Falls City Electric Light & Power Co	GD	Falls City	Falls City		
40	Florence Electric Co	GD	Florence and Glendale	Florence	Florence	
41	Fossil Flouring Mills & Electric Light Plant	GD		Fossil		
42	Hammond Lumber Co	GD	Warrenton, Astoria, and Flavel.	Astoria	S. 3, T. 8 N., R. 9 W.	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

OKLAHOMA—Continued.

B.—MUNICIPAL PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
120	Private		350	235		150	$0.10 -$0.075	$0.05-$0.035		Mc. C.
121	Do		150	80		50				Mc. C.
122	Do		120	65	10	50				Mc.
123			50	50	50	35	.15			C.
124	Private		365	260		200	.15 - .10			C.
125	Do		330	200		125	.10	.05		Mc. C.
126	Do		375	375		250	.12 - .06	.03		Mc. C.
127										M.
128			140	100		50				Mc. C.
129	Private		160	205		175	.15 - .11	.10- .06		Mc. C.
130			75	75		75				Mc.
131	Private				120	48	.125			Mc. C.
132			400	300		150	.10	.07- .05		Mc. C.
133			160	100		143				Mc.
134	Private		150	375		250	.10	.06		C.
135			200	200		145	.15 - .05			Mc. C.
	Total, B	358	13,545	11,573	855	8,687				

C. ALL OTHER PLANTS.

136					30	150			Oklahoma Ry. Co	M. Mc. C.
137						265			Chickasha Gas & Electric Co	Mc. C.
138	Private		2,400	5,980		4,250				C.
139	Do				300	200				C.
	Total, C		2,400	5,980	330	4,865				
	Grand total	1,758	51,403	62,066	6,685	51,448				

OREGON.

A.—PUBLIC UTILITY PLANTS.

1	Private		1,350	1,650		1,375			Hammond Lumber Co	C.M.Mc.O.
2		840				500				O.
3	Private	500				250			Hydro Electric Co	C. Mc. O.
4	Do	3,750				2,250			Hood River Gas & Electric Co	C. Mc. O.
5	Do	4,000				2,750				C.
6									Sheridan Light & Power Co	Mc. O.
7	Private		300	450		275	$0.15	$0.15-$0.03		Mc. O.
8		716				400	$0.12 - .055	.08- .07		C. Mc. O.
9	Private	520	480	750		560	.11	.07- .022		C.M.Mc.O.
10	Do		150	150		150	.12 - .05	.08- .035		C.M.Mc.O.
11	Do		1,050	777		625	.11 - .05	.07- .022		Mc.
12			200	750		600				Mc. O.
13	Private		4,000	4,000		3,300		.07- .022		Mc.
14	Do	300				240	.10 - .01			C. Mc. O.
15		2,750				1,950				C. O.
16		7,000				3,750				C. O.
17	Private	1,050				600	.10 - .01			C. O.
18	Do	100	100	100		135	.10 - .09			C. Mc. O.
19	Do		400	670		635	.15 - .07	.07- .02		C. Mc.
20		133				75				M. O.
21	Private				75	60	1.25			Mc.
22					60	75				Mc.
23	Private	1,100				400	.08			C. Mc. O.
24	Do		350	300		180	.12 - .06	.05- .02		C. Mc. O.
25	Do	114				25	.10 - .06			C. Mc. O.
26		375				200				O.
27		750				400	.12 - .03			M. Mc. O.
28	Private	1,100	500	500		1,250	.08	.05- .02		C. Mc. O.
29			650	667		500				Mc.
30		1,600				800				M. Mc. O.
31	Forest	600				300	.12 - .05	.10- .01		C. Mc. O.
32	Do	1,500				1,100	.12 - .05	.10- .01		C. O.
33	Private	600				380	.12 - .05	.10- .01		C. O.
34	Forest	1,000				800	.12 - .05	.10- .01		C. O.
35	Private	80			80	60	.20	.10		C. Mc. O.
36										Mc. O.
37	Private	150				200	.12 - .02	.10- .01		C. Mc. O.
38	Do	150				150	.12 - .02	.10- .81		C. Mc. O.
39		115				100				Mc. O.
40	Private		100	150		100	.15 - .07			C. Mc.
41						30				O.
42	Private		1,900	4,250		2,600	.0081			C. Mc.

[1] Lamp month.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

OREGON—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
43	Heppner Light & Water Co	GD	Heppner	Heppner		
44	Hermiston Light & Power Co	GD	Umatilla County	Hermiston	S. 16, T. 4 N., R. 28 E.	Umatilla River
45	Hydro Electric Co	GD	Hood River	Hood River	S. 15, T. 2 N., R. 10 E.	Hood River
46	Joseph Light & Power Co	GD	Joseph	Joseph	S. 31, T. 2 S., R. 45 E.	Wallowa River
47	Lebanon Electric Light & Water Co	GD	Lebanon	Lebanon	Lebanon	South Santiam
48	Mollala Electric Co	GD	Canby and vicinity	Canby		Mollala River
49	National Securities Corporation Idaho-Oregon Light & Power Co	H GTD	Eastern Oregon and western Idaho.	Oxbow	S. 9, T. 7 S., R. 48 E.	Snake River
50	Northwestern Electric Co	GD	Portland	Pittock	Portland	
51	Northwest Light & Water Co	GD	Sumpter	Sumpter	S. 29, T. 9 S., R. 37 E.	Powder River
52	Oregon Iron & Steel Co., The Oswego Lake Water, Light & Power Co	GD	Oswego and Courtney	Oswego	T. 2 S., R. 1 E.	Tualitin
	[1]Clark, E. W., & Co., Management Corporation					
53	Portland Railway, Light & Power Co	GTD	Portland, Polk, Newberg, Clackamas, Yamhill, Marion, Washington, and Multnomah Counties.	Boring "K"	Boring	
54	Do			Bull Run "O"	S. 6, T. 2 S., R. 5 E.	Big and Little Sandy Rivers.
55	Do			Cazadero "G"	S. 33, T. 3 S., R. 4 E.	Clackamas River
56	Do			Estacado "M"	S. 20, T. 3 S., R. 4 E.	do
57	Do			Newberg	Newberg	
58	Do			Oregon City "B"	S. 31, T. 2 S., R. 2 E.	Willamette River
59	Do			Portland "E"	Portland	
60	Do			Portland "L"	do	
61	Do			St. Johns "N"	do	
62	Do			Salem "H"	Salem	
63	Do			Silverton "J"	S. 1, T. 7 S., R. 1 W.	Silver Creek
64	Prairie Power Co	GD	Prairie City	Prairie City	S. 11, T. 13 S., R. 33 E.	John Day River
65	Rogue River Public Service Corporation	GD	Gold Hill	Gold Hill	Gold Hill	Rogue River
66	St. Helens Lumber Co	GD	St. Helens	St. Helens		
67	Seaside Light & Power Co	GD	Seaside and Gearhart	Seaside	Seaside	
68	Scott, Charles	GD	Scotts Mills	Scotts Mills	S. 1, T. 6 S., R. 1 E.	Butte Creek
69	Sheridan Light & Power Co	GD	Yamhill and Polk Counties	Sheridan	S. 34, T. 5 S., R. 6 W.	Mill Creek
70	Stayton Electric Light Co	GD	Stayton	Stayton		
71	Steidl & Tweet	GD			T. 17 S, R. 12 E	Deschutes River
72	Sutherlin Light & Power Co	D	Sutherlin			
73	Tillamook Public Service Co (Lessor, Bay City Land Co.)	GD L	Bay City and Port Russell	Bay City		
74	Trellinger, C. S	GD	North Yamhill	North Yamhill		
75	Tualitin Valley Electric Co	D	Sherwood, Tualitin, and Tigard.			
76	Turner Electric Light & Power Co	GD	Turner	Turner	Turner	
77	Vale Light & Water Co	D	Vale			
78	Willamina Electric Co	GD	Willamina	Willamina	S. 31, T. 5 S., R. 6 W.	Willamina River
79	Withers, C. L	GD	Paisley	Spring Grove	S. 16, T. 33 S., R. 17 E.	Spring Grove Creek
80	Yaquina Electric Co	GD	Newport and Toledo	Toledo		

B.—MUNICIPAL PLANTS.

81		GD	Ashland	Ashland	Ashland	Ashland Creek
82		GD	Baker	Baker	S. 19, T. 9 S., R. 40 E.	Marble & Elk Creeks
83		GD	Eugene	Eugene	S. 29, T. 17 S., R. 1 W.	McKenzie River
84		GD	Forest Grove	Forest Grove	Forest Grove	
85		GD	Grass Valley	Grass Valley		
86		D	Ione	Ione		
87		GD	Jefferson	Jefferson	T. 10 S., R. 3 W.	Santiam River
88		GD	McMinnville	McMinnville		
89		GD	Milton and Freewater	Milton	Milton	Walla Walla River
90		GD	Myrtle Creek	Myrtle Creek		
91		GD	Oregon City	Oregon City		
92		GD	Scio	Scio		

C. ALL OTHER PLANTS.

93	Baker Mines Co		Mining	Cornucopia	S. 27, T. 6 S., R. 45 E.	Pine Creek
94	Crown Willamette Paper Co	G	Paper mills	Oregon City	S. 31, T. 2 S., R. 2 E.	Willamette River
95	Do		do	Warrendale	S. 31, T. 2 N., R. 7 E.	Pierce Creek
96	Douglas County Light & Power Co	G	Ice machines	Roseburg	Roseburg	
97	Dick, James D		Farming	Minerva	S. 27, T. 17 S., R. 11 W.	North Fork Siuslaw
98	Hawley Paper Co		Paper mills	Oregon City		
99	Oregon City Woolen Mills		Woolen mills	do		
00	Oregon Iron & Steel Co			do		
01	West Coast Mines Co	G		Champion		

[1]E. W. Clark & Co. Management Corporation is not placed in alphabetical order.

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

OREGON—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
43			330	220		150				Mc.
44		240				200	$0.15	$0.10		C. Mc.
45	Private	750				300			Hood River Gas & Electric Co.	C. Mc. O.
46	Do	400				225				C. O.
47	Do	115	180	150		100	$0.10 - .06	$0.07 - .02		Mc. O.
48		300				200				Mc. O.
49	Private	5,000				3,600				C. O.
50	Do		3,000	7,750		6,500				Mc.
51	Forest	220	200	200		150	.15 - .10			C. Mc. O.
52		750				500	.07 - .04	.07 - .03		C.
53	Private		400	500		400	.09 - .04	.07 - .007		C. Mc. O.
54	Forest	19,200				11,250	.09 - .04	.07 - .007		C. Mc. O.
55	Private	26,800				14,250	.09 - .04	.07 - .007		C. Mc. O.
56	Do	18,900				11,000	.09 - .04	.07 - .007		C. O.
57	Do		600	425		275	.15 - .04	.07 - .01		C. Mc.
58	Do	14,400				7,230	.09 - .04	.07 - .007		C. O.
59	Do		6,800	19,500		12,500	.09 - .04	.07 - .007		C. Mc. O.
60	Do		3,280	10,500		6,000	.09 - .04	.07 - .007		C. O.
61	Do		1,536	3,350		2,500	.09 - .04	.07 - .007		C. Mc. O.
62	Do		800	1,600		1,000	.09 - .04	.07 - .01		C. O.
63	Do	700				250	.09 - .04	.07 - .01		C. O.
64	Private	150				100	.20 - .15	.06 - .03		C. Mc. O.
65		(300)				180				O.
66	Private		1,000	325		200	.10			C. Mc.
67	Do		600	575		390	.18 - .04	.075 - .005		C. Mc. O.
68	Do	(210)				125	.50			C.
69	Do	85	200	300		225	.15 - .07	.07 - .02		C. Mc. O.
70		60				60				Mc. O.
71		408				275				O. C.
72									Douglas County Light & Water Co.	C.
73			100	90	35	50				Mc.
74		75				60				Mc. O.
75									Yamhill Electric Co.	Mc. O.
76		276				60				P.
77									Electric Investment Co.	C. Mc.
78	Private	100				75	.15 - .03	.07 - .02		C.
79	Do	30				25				C.
80	Do		500	300		300	.14 - .08	.06 - .02		C. Mc.
	Total, A	120,362	31,056	60,949	250	110,835				

B.—MUNICIPAL PLANTS.

81	Forest	600				300				C. Mc. O.
82	Private	140				100				O.
83	Do	2,400				1,410	$0.08	$0.045		C. Mc. O.
84	Do		150	150		100	$0.125- .10	$0.07 - .02		C. Mc. O.
85					32	25				Mc.
86									Inland Portland Cement Co.	Mc. O.
87	Private	50	80	60		70	.15 - .06			C. Mc. O.
88		350				200				Mc. O.
89	Private	600				300	.10 - .05	.0225- .0125		C. Mc. O.
90		(66)				40				O.
91		350				(210)				O.
92		90				60				Mc. O.
	Total, B	4,646	230	210	32	2,815				

C.—ALL OTHER PLANTS.

93	Forest	300								O.
94		24,774	5,653	3,500		1,850			Portland Railway, Light & Power Co.	O.
95	Forest	1,350				10				C. O.
96		100				75				O.
97	Forest	1				1				O.
98		3,480								O.
99		250								O.
100		700								O.
101		800				370				Mc. O.
	Total, C	31,755	5,653	3,500		2,306				
	Grand total	156,763	36,939	64,659	282	115,956				

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

PENNSYLVANIA.

A.—PUBLIC UTILITY PLANTS.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
	American Gas Co. (The)	H				
1	Luzerne County Gas & Electric Co	GD	Luzerne County	Plymouth	Plymouth	
2	Philadelphia Sub. Gas & Electric Co	GD	Montgomery, Chester, and Greene Counties.	Phoenixville		Schuylkill Canal
3	Do	GD	Pottstown	Pottstown	Pottstown	
4	Do	GD	West Chester and Malvern	West Chester	West Chester	
5	Do	GD	Wyncote and vicinity	Wyncote	Wyncote	
	American Gas & Electric Co	H				
6	Scranton Electric Co	GD	Scranton, Carbondale, and vicinity.	Scranton	Scranton	
	American Railways Co	H				
7	Home Electric Light & Steam Heating Co	GD	Tyrone and vicinity	Tyrone	Tyrone	
	American Water Works & Electric Co	H				
8	Allegheny Valley Light Co	D	New Kensington and vicinity.	New Kensington		
9	Allegheny Valley Street Ry. Co	GD		Creighton	Creighton	
10	Butler Light, Heat & Motor Co	D	Butler			
11	Inter Borough Electric Co	D	Sewickley and vicinity			
12	Kittanning Electric Light Co	D	Kittanning and vicinity			
13	Westmoreland Electric Co	D	Westmoreland and vicinity			
14	West Pennsylvania Electric Co	GD	Connellsville and vicinity	Connellsville	Connellsville	
15	West Pennsylvania Light & Power Co	GD	Ligonier and vicinity	Ligonier	Ligonier	
16	West Pennsylvania Lighting Co	GD	Washington, Canonsburg	Washington	Washington	
17	Do		Waynesburg and vicinity	Waynesburg	Waynesburg	
18	West Pennsylvania Rys. Co	GD		Connellsville	Connellsville	
	Barstow, W. S., & Co. (Inc.)	M				
19	Lebanon Valley Electric Light Co	D	West Lebanon and vicinity	Lebanon		
20	Pennsylvania Utilities Co	D	Northampton and Monroe Counties, Pa., and Phillipsburg, N. J.	Bangor		
21	Do			Dock Street		
22	Do			South Side		
23	Do			do	Easton	Lehigh River
24	Do			Stroudsburg	Stroudsburg	Broadheads River
	Reading Transit & Light Co	GD				
25	Lessor, Chester Traction Co	L		Chester	Chester	
26	Edison Electric Illuminating Co., of Lebanon	L	Lebanon, Avon, and vicinity	Lebanon	Lebanon	
27	Lessor, Metropolitan Electric Co	L	Reading and Mohnton	Reading	Reading	
28	Lessor, Schuylkill Valley Traction Co	L		Collegeville	Collegeville	
29	Beaver Springs Electric Light Co	GD	Beaver Springs	Beaver Springs		
30	Benton Electric Co	GD	Benton	Benton	Benton	Fishing Creek
31	Big Springs Electric Co	GD	Newville	Newville		Conodoquinch Creek
32	Birdsboro Electric Co	GD	Birdsboro	Birdsboro		
33	Blue Mountain Electric Co	GD	Bethel, Strausstown, Rehrersburg, and Shubert.	Bethel	Bethel	Shubert Creek
34	Boiling Springs Electric Light Co	GD	Boiling Springs	Boiling Springs		
35	Brownstown Electric Light, Heat & Power Co	GD	Brownstown and Talmage	Brownstown		Conestoga River
36	Carbon Transit Co	GD		Lehighton	Lehighton	
37	Do			East Mauch Chunk	East Mauch Chunk	
38	Do			Mauch Chunk	Mauch Chunk	
39	Clymer Electric Co	GT	Philadelphia & Easton Ry. Co.	Raubsville		Lehigh River
40	Colemanville Water & Power Co	GD	Lancaster County	Colemanville		Pequea Creek
41	Conococheaque Electric Light, Heat & Power Co	GD	Franklin County	Markes		
42	Cooks Mills Electric Light & Power Co	GD	Cooks Mills and Ellerslie, Md	Ellerslie	Cooks Mills	Wils Creek
43	Cumberland Ry	GD	Mount Holly Springs	Mount Holly Springs	Mount Holly Springs	Mountain Creek
44	Delaware Water Gap Light Plant	GD	Delaware Water Gap	Delaware Water Gap	Delaware Water Gap	Cherry Creek
45	Delta Electric Power Co	GD	Peach Bottom and Cardiff, Md.	Peach Bottom	Peach Bottom	Muddy Creek
46	Delta Water Power Co	GTD	Delta	Delta		
47	Dillsburg Light, Heat & Power Co	GD	Dillsburg	Dillsburg	Monroe	Yellow Breeches Creek
48	Eagles Mere Light Co	GD	Sullivan and Lycoming Counties.	Eagles Mere		Trout River
49	Erie County Electric Co	GD	Erie	Erie	Erie	
50	Glatfelter, P. H. Co	GD		Spring Grove	Spring Grove	Codones
51	Hummelstown Consolidated Water Co	GD	Hummelstown and Swatara	Hummelstown		
	Interstate Electric Corporation	H				
52	Corry City Electric Light Co	GD	Corry	Corry	Corry	
53	Union City Electric Light Co	GD	Union City	Union City	Union City	
	Interstate Public Service Corporation	H				
54	Johnsonburg Light & Power Co	GD	Johnsonburg	Johnsonburg	Johnsonburg	
55	Kane Electric Light & Power Co	GD	Kane	Kane	Kane	
56	Ridgway Electric Light Co	GD	Ridgway	Ridgway	Ridgway	
57	Lancaster Electric Light, Heat & Power Co	GT		Rock Hill		Conestoga River
58	Do	GT	Lancaster County	Slackwater		do
59	Do	GT	Edison Electric Illuminating Co.	Wabank		do
60	Lehigh Coal & Navigation Co	HGTD		Mauch Chunk		Lehigh River
61	Harwood Electric Co	GTD	Hazleton and vicinity	Harwood Mines	Harwood Mines	
62	Lehigh Navigation Electric Co	GT	Mauch Chunk and Lansford	Hauto	Hauto	
63	Schuylkill Gas & Electric Co	GD	Shenandoah	Shenandoah	Shenandoah	
	Lehigh Valley Transit Co	H				
64	Bethlehem Electric Light Co	D	Bethlehem and vicinity			
65	Halcyon Electric Light and Power Co	D	South Bethlehem			
66	Lehigh Valley Light and Power Co	GDT	Allentown, Bethlehem, and vicinity.	Allentown	Allentown	
67	Long Electric Co	GD	Howard	Howard		
68	Middleburg Light, Heat & Power Co	GD	Venango and Snyder Counties.	Middleburg	Middleburg	Middle Creek
69	Millersburg Electric, Light, Heat & Power Co	GD	Millersburg	Millersburg		Wiconisco Creek
	Municipal Service Co	H				
70	Chester Valley Electric Co	GD	Coatesville and vicinity	Coatesville	Coatesville	
71	Do		Downingtown and vicinity	Downingtown	Downingtown	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

PENNSYLVANIA.

A.—PUBLIC UTILITY PLANTS.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
1			2,050	5,480		3,000				Mc.
2	Private	500	2,250	2,000		2,315	$0.10			Mc.M. C.
3			1,000	1,200		780				Mc.
4			1,000	1,100		700				Mc.
5			750	1,020		820				Mc.
6			11,200	35,800		26,400				Mc.
7			1,682	1,330		1,000				Mc.
8										Mc.
9			2,000	(2,170)		1,310				Mc.
10									West Pennsylvania Rys. Co.	Mc.
11									do	Mc.
12									do	Mc.
13									do	Mc.
14			7,480	14,000		9,250				Mc.
15			200	215		135				Mc.
16			1,940	2,020		1,775				Mc.
17			500	350	240	450				Mc.
18			19,200	30,550		22,500				Mc.
19										Mc.
20			750	700		560				Mc. C.
21			2,688	15,800		16,000				Mc. C.
22			1,320	4,200		3,125				Mc. C.
23		1,500				1,000			Clymer Power Co.	C.
24		900				650			Eastern Pennsylvania Power Co.	C.
25			2,500	2,500		1,800				Mc.
26			1,500	2,100		1,350				Mc.
27			10,000	18,000		13,500				Mc.
28			2,800	3,500		2,000				Mc.
29	Private	14				11½				Mc. C.
30	Do	120			40	120	.10	$0.04 -$0.03		Mc. C.
31	Do	100	80	70		235	$0.12 -$0.06	.04 - .0275		Mc. C.
32		100	100	80		60				Mc.
33	Private	70			35	30	.15 - .06	.06 - .05		Mc. C.
34		100				50				Mc.
35		75				35	.10 - .06			Mc. C
36			500	600		375				Mc.
37		500				(300)				Mc. M.
38			250	250		150				Mc.
39		1,150				770				Mc.
40	Private	450	660	1,350		1,125	.135- .10	.054- .02		Mc. M. C
41		60	150	125		125				Mc.
42	Private	90	40	35		200	.08			C.
43	Do	120	475	700		650				Mc. M. C.
44	Do	35	350	125		330	.10			C.
45	Do	600				350	.08	.05 - .02		Mc. C.
46		300				165				Mc.
47	Private	162	150	125		75	.12 - .075	.06 - .04		Mc. C.
48	Do	462				480	.12 - .065	.05 - .02		Mc. C.
49			4,650	11,770		8,520				Mc.
50	Private	150	3,854	2,719		670	.10			C.
51		400	600	500		410				Mc. M.
52			500	500		325				Mc.
53			210	200		170				Mc.
54					200	150				Mc.
55					675	475				Mc.
56					610	400				Mc.
57	Private	350				350	.0125			Mc. C.
58		1,500				750	.0125			Mc. C.
59		350				200	.0125			Mc. C.
60		5,367				(3,200)				O.
61			9,750	20,000		15,000				Mc.
62			8,352	50,000		37,500				Mc.
63			320	500		500				Mc.
64										Mc.
65										Mc.
66			5,500	18,330		13,750				Mc.
67		65	50			17				Mc. C.
68	Private	78	125	125		100	.125	.075- .02		Mc. C.
69	Do	160	250	300		240	.10			Mc. C.
70			1,500	2,500		1,350				Mc.
71			1,400	2,070		1,550				Mc.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

PENNSYLVANIA—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
	National Properties Co.	H				
72	Chester County Light & Power Co.	D	Kennett Square and vicinity			
73	Orangeville Electric Light & Power Plant	GD	Orangeville	Orangeville	Orangeville	Fishing Creek
74	Paupack Electric Co.	GD	Hawley	Hawley	Hawley	Wallenpaupack River
75	Penn Central Light & Power Co.	HGTD	Hollidaysburg, Juniata, Wilmore, Petersburg, Lewistown, and Durham.	Lewistown	Lewistown	
76	Do.			Eighteenth Street	Altoona	
77	Do.			Twentieth Street	do	
78	Good, G. S., Electric Co.	GD	Patton	Patton	Patton	
79	Pennsylvania Central Power & Transportation Co.	GT		Williamsburg	Williamsburg	
80	Pennsylvania Hydroelectric Co	GT	Pennsylvania Central Light & Power Co.	Warrior Ridge	Warrior Ridge	Juniata River
81	Penn Public Service Co.	GTD	Blairsville and vicinity	Blairsville	Blairsville	
82	Do.	GTD	Clearfield and vicinity	Clearfield	Clearfield	
83	Do.	GTD	Indiana	Indiana	Indiana	
84	Do.	GTD	Phillipsburg and vicinity	Phillipsburg	Phillipsburg	
85	Pennsylvania Water Power Co.	HGT	Lancaster and Baltimore, Md.	Holtwood	Holtwood	Susquehanna River
86	Susquehanna Transportation Co.	D	Baltimore			
87	Peoples Ice, Light & Storage Co.	GT	Duquesne Light Co.	McKeesport	McKeesport	
	Philadelphia Co. (The)	H				
88	Duquesne Light Co.	GTD	Pittsburgh and vicinity		Pittsburgh	
89	Do.					
90	Do.					
91	Do.					
92	Do.					
93	Do.					
94	Do.					
95	Do.					
96	Pennsylvania Light & Power Co.	GD	do	Allegheny	Allegheny	
97	Pittsburgh City Light & Power Co.	D	do	Pittsburgh	Pittsburgh	
	Philadelphia Electric Co.	H				
98	Beacon Light Co.	GD	Chester and vicinity	Chester	Chester	
99	Delaware County Electric Co.	D	Lansdowne and vicinity	Lansdowne		
100	Philadelphia Hydroelectric Co.	GT	Philadelphia Rapid Transit Co.	Manayunk	Manayunk	Schuylkill River
101	Raystown Water Power Co.	GD	Huntingdon, Allegheny, and Fayette Counties.	Huntingdon		Raystown Branch
102	Redbank Electric Co.	GD	New Bethlehem	New Bethlehem		
	Republic Railway & Light Co.	H				
103	New Castle Electric Co.	D	New Castle	New Castle		
104	Pennsylvania Power Co.	GD	Lawrence County	Ellwood City	Ellwood City	
105	Shenango Valley Electric Light Co.	D	Sharon and vicinity	Sharon		
106	Zelienople Light & Power Co.	D	Zelienople	Zelienople		
107	Ringtown Electric Light, Heat & Power Co.	D	Ringtown	Ringtown		
108	Shermans Valley Light, Heat & Power Co.	GD	Loysville	Loysville	Loysville	Shermans Creek
109	Shippensburg Gas & Electric Co.	GD	Shippensburg	Shippensburg		Conodoquinet Creek
110	State Center Electric Co.	GD	Center, Chester, and Schuylkill Counties.	Milesburg		
111	Do.	GD	do	State College		
112	Strasburg Electric Light, Heat & Power Co.	GD	Strasburg	Strasburg	Strasburg	
113	Susquehanna County Light & Power Co.	GD	Susquehanna County	Susquehanna	Oakland Borough	Susquehanna River
	Tri-State Railway & Electric Co. (The)	H				
114	Beaver County Light Co.	GD	Beaver and Bucks Counties.	Fallston		
115	Tunkhannock Electric Co.	GD	Tunkhannock	Tunkhannock		Tunkhannock Creek
	United Gas & Electric Corporation of Connecticut.	H				
116	Edison Electric Co.	GTD	Lancaster and vicinity	Lancaster	Lancaster	
117	Harrisburg Light & Power Co.	GD	Harrisburg and vicinity	Harrisburg	Harrisburg	
118	Wilkes-Barre Co.	GD	Wilkes-Barre and vicinity	Wilkes-Barre	Wilkes-Barre	
	United Gas Improvement Co.	H				
119	Counties Gas & Electric Co.	GD	Conshohocken and vicinity	Conshohocken	Conshohocken	
120	Do.	GD	Norristown and vicinity	Norristown	Norristown	
121	Do.	GD	Wayne and vicinity	Wayne	Wayne	
122	Lessor, Eureka Electric Light, Heat & Power Co.	L		Llanerch		
	United Service Co.	H				
123	Eastern Pennsylvania Gas & Electric Co.	GD	Bristol, Norrisville, and Yardley.	Bristol	Bristol	
124	Jefferson Electric Co.	GD	Punxsutawney	Punxsutawney	Punxsutawney	
125	Warren Light & Power Co.	GD	Warren	Warren	Warren	
	Walbridge, H. D., & Co.	H				
126	Citizens Light, Heat & Power Co.	GTD	Johnstown and vicinity	Johnstown	Johnstown	
127	Northumberland County Gas & Electric Co.	GD	Northumberland County	Sunbury	Sunbury	
128	White Haven Electric Illuminating Plant.	GD	White Haven	White Haven		
	White, J. G., & Co. (Inc.)	M				
129	Eastern Pennsylvania Light, Heat & Power Co.	GD	Ashland and vicinity	Ashland	Ashland	
130	Do.	GD	Frackville and vicinity	Frackville	Frackville	
131	Do.	GD	Pottsville and vicinity	Pottsville	Pottsville	
132	White Oak Light, Heat & Power Co.	GD	Hollsopple and vicinity	Hollsopple		
133	Wrightsville Light & Power Co.	GD	York and Lancaster Counties	Wrightsville		
134	Yorkhaven Water & Power Co.	GT	York and Dauphin Counties.	Yorkhaven	Yorkhaven	Susquehanna River
	York Railways Co.	H				
135	Edison Light & Power Co.	GD	York and vicinity	York	York	
136–258	122 additional fuel power plants					

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

PENNSYLVANIA—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
72									Wilmington & Philadelphia Traction Co.	Mc.
73	Private	45				(30)	$0.10			C.
74	Do	300	300	300		525	$0.10– .05			Mc. M. C.
75			600	750		450				Mc.
76			(1,800)	(3,000)		1,800				Mc.
77			1,500	1,250		1,250				Mc.
78			650	550		400				Mc.
79			800	6,000		5,000				Mc.
80	Private	2,000	2,400	4,670		5,500				Mc. M. O. C.
81			600	225		150			Citizens Light, Heat & Power Co.	Mc.
82			720	1,000		600				Mc.
83			600	530		400				Mc.
84			3,050	6,330		4,450				Mc.
85	Private	118,000				83,500				Mc. M. O. C.
86										Mc.
87	Private		1,750	1,200		420	.15– .015			C.
88										
89										
90										
91										
92			65,152	153,600		111,600				Mc.
93										
94										
95										
96			600	6,480		5,650				Mc.
97										Mc.
98			3,000	13,920		10,000				Mc.
99										Mc.
100	Private	2,616				1,600				Mc. M. O. C.
101		3,900				2,625				Mc. M.
102		250			325	400				Mc.
103										Mc.
104		1,000	750	1,000		2,250				Mc. M.
105										Mc.
106									Pennsylvania Power Co.	Mc.
107										Mc. C.
108	Private	30			25	30	.10	$0.05		Mc. C.
109		1,350	600	1,370		1,455	.12– .06	$0.04– .0175		Mc. C.
110										
111		250	1,000	1,200		450				Mc. M.
112		200				300			Edison Electric Illuminating Co.	Mc.
113	Private	738	750	1,300		1,400	.15– .04	.15– .0225		C.
114		500	1,650	3,670		2,080				Mc. M.
115		200	150	140		200				Mc.
116			4,160	10,000		7,000				
117			(4,500)	6,550		4,640			Yorkhaven Water & Power Co.	Mc.
118			5,340	6,400		4,600				Mc.
119			300	350		470				Mc.
120			1,788	3,130		2,080				Mc.
121			1,100	2,205		1,650				Mc.
122										Mc.
123			300	350		305			Philadelphia Electric Co.	Mc.
124			600	1,670		1,250				Mc.
125			750	2,800		2,300				Mc.
126			3,000	11,520		10,520				Mc.
127		250	2,700	2,730		2,375				Mc.
128		250				200				Mc.
129			200	450		300				Mc.
130			530	560		300				Mc.
131			4,135	6,780		4,650				Mc.
132		35				(20)				Mc.
133		120	225	150		60				Mc.
134	Private	20,000				15,000	.10– .05	.03– .005		Mc. M. O. C.
135			1,920	4,630		3,825			Yorkhaven Water & Power Co.	Mc.
136–258			57,556	72,393	7,435	63,981				
	Total, A	167,862	290,152	598,162	9,585	571,704				

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

PENNSYLVANIA—Continued.

B.—MUNICIPAL PLANTS.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
259		GD	Media	Media	Media	Riddley Creek
260		GD	Mifflinburg	Mifflinburg		
261		GD	Norristown	Norristown	Norristown	Schuylkill River
262–299	37 additional fuel power plants					

C.—ALL OTHER PLANTS.

	American Railways Co	H				
300	Altoona & Logan Valley Electric Ry. Co	G	Electric railways	Altoona	Altoona	
301	Scranton Ry. Co	G	do	Scranton	Scranton	
302	Buffalo & Lake Erie Traction Co	G	do	Erie	Erie	
	Philadelphia Co. (The)	H				
303	Beaver Valley Traction Co	G	do	Rochester Township	Rochester Township	
304	Pittsburgh & Beaver Street Ry. Co	G	do			
305	Philadelphia Rapid Transit Co	G	do	Beach Street	Philadelphia	
306	Do			Market Street	do	
307	Do			Mount Vernon Street	do	
308	Do			Upper Darby	do	
309	Do			Wyoming Avenue	do	
	Scranton & Wilkes-Barre Traction Corporation	H				
310	Lackawanna & Wyoming Valley R. R. Co	G	do	Scranton	Scranton	
311	Stroudsburg Passenger Ry. Co	GD	Electric Railway	Stroudsburg		
312–350	38 additional fuel power plants					

RHODE ISLAND.

A.—PUBLIC UTILITY PLANTS.

	Massachusetts Electric Cos	H				
1	Bay State Street Ry. Co	GTD	Jamestown and Portsmouth	Portsmouth	Portsmouth	
2	(Lessor, Newport & Fall River Street Ry. Co.)	L		Newport	Newport	
3	Narragansett Electric Lighting Co	GTD	Providence and vicinity	Providence	Providence	
4	Narragansett Pier Electric Light & Power Co	D	Narragansett Pier and vicinity.			
5	Wickford Light & Water Co	D	Wickford and vicinity			
	New York, New Haven & Hartford R. R	H				
6	Rhode Island Co., The	GTD		Providence	Providence	
	Stone & Webster	M				
7	Blackstone Valley Gas & Electric Co	GTD	Pawtucket, Ashton, Pascoag	Central Falls	Central Falls	Blackstone
8	Do	GTD	Woonsocket and Manville	Pawtucket	Pawtucket	do
9	Do	GTD	Lincoln and vicinity	Woonsocket	Woonsocket	Blackstone River
	Tiverton Electric Light Co	H				
10	Fall River Electric Light Co	D	Tiverton			
11	Westerly Light & Power Co	GD	Southwestern Rhode Island	Westerly	Westerly	

B.—MUNICIPAL PLANTS.

12		D	Pascoag and Harrisville	Pascoag		

SOUTH CAROLINA.

A.—PUBLIC UTILITY PLANTS.

1	Belton Power Co	GD	Belton and Williamston	Belton	Belton	Saluda
2	Blackville Lighting Co	GD	Blackville	Blackville	Blackville	
3	Branchville Electric & Telephone Co	GD	Branchville	Branchville	Branchville	
4	Brodie Light & Power Co	GD	Leesville	Leesville		
5	Carolina-Central Electric Co	GD	Darlington	Darlington	Darlington	
6	Do	GD	Florence and Mullins	Florence	Florence	
7	Do	GD	Marion and Mullins	Marion	Marion	
8	Carolina Light & Power Co	GD	Aiken, Vaucluse and Graniteville.	Aiken		
9	Carolina Lumber & Power Co	GD	Timmonsville	Timmonsville	Timmonsville	
10	Carolina Public Service Co	GD	Johnston	Johnston	Johnston	
11	Charleston-Isle of Palms Traction Co	GTD	Mount Pleasant, Atlanticville, and Sullivans Island.	Sullivans Island	Sullivans Island	
12	Columbia Railway, Gas & Electric Co	GTD	Shandon, Ames	Columbia	Columbia	
13	Do	HGTD	Eau Claire and New Rockland.	do		Broad River
14	Parr Shoals Power Co	GT	Columbia and Waverly			do

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

PENNSYLVANIA—Continued.

B.—MUNICIPAL PLANTS.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
259		50	170	200		75				M. C.
260	Private	200				125	$0.10			M. C.
261	Do	288	250	250		145				M. C.
262–299			11,290	13,289	1,810	11,318				
	Total, B	538	11,710	13,739	1,810	11,663				

C.—ALL OTHER PLANTS.

300			2,100	2,250		1,500				Mc.
301			2,175	2,400		1,600				Mc.
302			3,100	5,000		3,200			Niagara Lock and Ontario Power Co.	Mc.
303			900	1,128		700				Mc.
304			300	300		400				Mc.
305			7,380	(68,000)		41,000				Mc.
306			7,980	10,800		12,000				Mc.
307			7,500	12,100		9,100				Mc.
308			500	530		460				Mc.
309			10,800	(8,300)		5,000				Mc.
310			2,800	7,750		5,250				Mc.
311		133	150	150		150				Mc. M.
312–350			49,185	78,414	110	57,721				
	Total, C	133	94,870	203,122	110	138,081				
	Grand total	168,533	396,732	815,023	11,505	722,048				

RHODE ISLAND.

A.—PUBLIC UTILITY PLANTS.

1			750	1,200		825				Mc. M.
2			1,400	8,600		3,150				Mc. M.
3			14,000	28,260		20,570				Mc. M.
4	Private						$0.26–$0.12	$0.10	Narragansett Electric Lighting Co.	Mc. M. C.
5	Do						.26– .15	.10	do	Mc. M. C.
6			17,000	46,000		13,400				Mc. M.
7	Private	450				100	.10	$0.10– .013		Mc. M. C.
8	Do	1,125	2,240	2,000		2,250	.10	.10– .013	Rhode Island Power Co.	Mc. M. C.
9	Do	910	2,112	4,650		3,900	.115	.10– .0134	Hamlet Textile Co.	Mc. M. C.
10										Mc. C.
11	Private				1,625	800	.25	.05– .0175	Norwich & Westerly Traction Co.	Mc. M. C.
	Total	2,485	37,502	90,710	1,625	45,295				

B.—MUNICIPAL PLANTS.

12	Private						$0.12		Blackstone Valley Gas & Electric Co.	Mc. C.
	Grand total	2,485	37,502	90,710	1,625	45,295				

SOUTH CAROLINA.

A.—PUBLIC UTILITY PLANTS.

1	Private	4,650				3,100	$0.15	$0.12		M. M. O. C.
2			120	190		97½				Mc.
3			80	80		120				Mc.
4		200	100	100		135				Mc.
5	Private		250	350		200	$0.10– .10	$0.075– .05		Mc. C.
6	Do		900	1,270		950	.15– .10	.075– .05		Mc. C.
7	Do		380	425		325	.15– .10	.075– .05		Mc. C.
8		825	400	500		750	.18			Mc. M.
9			150	100		75				Mc.
10	Private		225	125		93	.125			Mc. C.
11			1,000	1,000		724	.15– .075	.15 – .075	Consolidated Railway & Lighting Co.	M. C.
12			4,000	7,330		6,500				Mc. C.
13		8,000				11,500				Mc. M. O. C.
14		18,000				15,500				Mc. Mc.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

SOUTH CAROLINA—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
15	Conneross Light & Power Co	GD	Seneca	Conneross	Near Seneca	Conneross Creek.
16	Craig, W. D., Electric Light Plant	GD	Chesterfield	Chesterfield		Thomsons Creek
17	Denmark Light & Power Co	GD	Denmark	Denmark	Denmark	
18	Enoree Power Co	GD	Wellford, Fountain Inn, and Simpsonville.	Woodruff	Woodruff	
19	Fort Mill Electric Co	D	Fort Mill	Fort Mill	Fort Mill	
20	Hartsville Electric Light & Water Co	GD	Hartsville	Hartsville	Hartsville	
21	Harvin, W. S., Electric Light Plant	GD	Manning	Manning	Manning	
	International Gas & Electric Co	H				
22	Georgetown Railway & Light Co	GTD	Georgetown	Georgetown	Georgetown	
23	Ivy Water, Light & Power Co	GD	Pickens	Pickens	Pickens	Town Creek
24	Kershaw Oil Mill Co	GD	Kershaw	Kershaw	Kershaw	
25	Lancaster Light & Power Co	D	Lancaster	Lancaster		
26	Lexington Electric Light & Power Co	GD	Lexington	Lexington	Lexington	
	Municipal Service Co	H				
27	Sumter Lighting Co	GD	Sumter	Sumter	Sumter	
28	North Electric Light & Power Co	GD	North	North	North	Bull Swamp Creek
29	Pendleton Electric Light Co	GD	Autun and Pendleton	Autun	Autun	Three and Twenty Mile Creek.
30	Quattlebaum Light & Ice Co	GD	Conway	Conway	Conway	
31	Reedy River Power Co	GD	Lawrens and Watts	Boyds Mill		
32	South Carolina Light, Power & Railways Co	GTD	Spartanburg and vicinity	Gaston Shoals	Gaston Shoals	Broad River
33	Do	GTD		Spartanburg		
34	Southern Power Co	HGTD	Western South Carolina and central North Carolina.	Greenville	Greenville	
35	Catawba Power Co	GD		Rock Hill	India Hook Shoals	Catawba River
36	Great Falls Power Co	GTD		Great Falls	Great Falls	
37	Do	GTD		Ninety-nine Island	Ninety-nine Island	Broad River
38	Do	GTD		Rocky Creek	Rocky Creek	
39	Southern Public Utilities Co	HGTD	Western North Carolina and northwestern South Carolina.	Anderson	Portman Shoals	Seneca and Savannah Rivers.
40	Do	HGTD		Greenville	Greenville	
41	(Lessor, Savannah Power Co.)	L		Greggs Shoals	Greggs Shoals	Savannah River
42	Greenville-Carolina Power Co	GD		Greenville		Saluda River
43	Sullivan Power Co	GTD	Laurens	Laurens		
44	Summerville Ice, Light & Power Co	GD	Summerville	Summerville	Summerville	
45	Union Manufacturing & Power Co	GD	Union	Neal Shoals	Neal Shoals	Broad River
	United Gas Improvement Co	H				
46	Charleston Consolidated Railway & Lighting Co.	GD	Charleston	Charleston	Charleston	
47	Walhalla Light & Power Co	GD	Walhalla and West Union	Walhalla	Walhalla	Big Cane Creek
48	Ware Shoals Manufacturing Co	GD		Ware Shoals	Ware Shoals	Saluda River

B.—MUNICIPAL PLANTS.

49		GD	Abbeville	Abbeville	Abbeville	
50		GD	Bamberg	Bamberg	Bamberg	
51		GD	Batesburg	Batesburg	Batesburg	
52		GD	Bennettsville	Bennettsville	Bennettsville	
53		GD	Bishopville	Bishopville	Bishopville	
54		GD	Camden	Camden	Camden	
55		GD	Clinton	Clinton	Clinton	
56		GD	Dillon	Dillon	Dillon	
57		D	Gaffney			
58		GD	Greenwood	Greenwood	Greenwood	
59		GD	Honea Path	Honea Path	Honea Path	
60		GD	Laurens	Laurens	Laurens	
61		GD	Newberry	Newberry	Newberry	
62		GD	Orangeburg	Orangeburg	Orangeburg	
63		GD	Rock Hill	Rock Hill	Rock Hill	
64		GD	St. Matthews	St. Matthews	St. Matthews	
65		GD	Seneca	Seneca	Seneca	
66		GD	Union and Monarch Mills	Union	Union	
67		D	Walhalla	Walhalla		
68		GD	Winnsboro	Winnsboro	Winnsboro	
69		D	Yorkville	Yorkville		

C.—ALL OTHER PLANTS.

70	Clifton Manufacturing Co	G	Manufacturing	Clifton	Clifton	Pacolet River
71	Courtenay Manufacturing Co	G	do	Newry		Little River
72	Lockhart Mills		do	Lockhart	Lockhart	Broad River
73	Pacolet Manufacturing Co		do	Pacolet	Pacolet	Pacolet River
74	Pelzer Manufacturing Co	G	do	Pelzer	Pelzer	Saluda River
75	Tucapau Mills		Mills	Tucapau	Tucapau	Tiger River
76	Woodford Ginnery & Light Co			Woodford	Woodford	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

SOUTH CAROLINA—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from	Source of information.
15	Private	1,200				900		$0.01 –$0.0062		C.
16	Do	300				(180)	$0.60	.40		C.
17			120	180		75				Mc.
18		1,600	300	250		1,100				Mc.
19							$0.15– .09	.09 – .015	Southern Power Co	Mc.
20			(70)	100		60				Mc
21			(80)	150		60	.16			Mc
22			415	700		420				Mc. M.
23	Private	37	100	65		50	.10			Mc. M. Mc. C.
24			(50)	70		80				Mc.
25									Southern Power Co	Mc.
26		75				50				Mc.
27	Private		835	1,375		962	.12– .10	.03 – .015		Mc. M. Mc. M. C.
28	Do	175				75				Mc. C.
29	Do	100	100	100		65	.12– .01			Mc. C.
30	Do		225	200		75	.15			Mc. C.
31		1,800				1,500		50.00		Mc. M.
32		12,000				7,200				Mc. M.
33			2,400	4,000		3,000				Mc. M.
34			10,000	9,000		6,000				Mc. M. O.
35		13,450				6,600				Mc. M. O.
36		41,600				21,000				Mc. M. O.
37		31,200				18,000				Mc. M. O.
38		41,600				24,000				Mc. M. O.
39	Private	9,000	750	1,000		6,650	.10– .05	.09 – .01	Southern Power Co	Mc.M.O.C.
40			600	850		200			Greenville-Carolina Power Co.	Mc.
41		3,000				2,000				Mc. O.
42		4,300				2,600		.015– .01	Southern Power Co	Mc. M. C.
43		400				(240)				Mc.
44			360	270		160				Mc.
45	Private	8,000				5,200				Mc.M.O.C.
										M. Mc.
46			2,640	6,670		6,500				Mc. M.
47		100				100				Mc. C.
48	Private	5,000				4,000				Mc. O. C.
	Total, A	206,612	4,256	36,450		162,161				

B.—MUNICIPAL PLANTS.

49			150	150		150			Southern Public Utilities Co	Mc.
50			200	225		150				Mc.
51			100	150		75				Mc.
52	Private		260	225		165	$0.12–$0.09	$0.08 –$0.06		Mc. C.
53			275	150		90				Mc.
54			350	550		300				Mc.
55			350	450		500				Mc.
56			225	150		100				
57									South Carolina Light, Power & Railways Co.	Mc.
58			206	200		250			Southern Public Utilities Co	Mc.
59			125	110		85				Mc.
60			200	250		200			Reedy River Power Co	Mc.
61			260	360		325	.10– .06	.08 – .04	Southern Power Co	Mc. C.
62	Private		300	515		425	.10– .05	.10 – .05		Mc. C.
63	Do		250	300		215	.10– .05	.08 – .022	Catawba Power Co	Mc. C.
64			170	75		50				Mc.
65			110	100		65				Mc.
66			450	575		425				Mc.
67									Walhalla Light & Power Co	Mc.
68			100	90		60				Mc.
69									Southern Power Co	Mc.
	Total, B		4,081	4,625		3,630				

C.—ALL OTHER PLANTS.

70	Private	2,000	900	750		1,500				O. M. C.
71	Do	1,200	700	700		100				O. C.
72	Do	2,800								O. M. C.
73	Do	2,800							South Carolina Light, Power & Railways Co.	O. C.
74	Do	6,500	6,000	4,500		1,800				O. M. C.
75		5,000								O.
76		100								Mc.
	Total, C	20,400	7,600	5,950		3,400				
	Grand total	227,012	45,937	47,025		169,191				

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

SOUTH DAKOTA.

A.—PUBLIC UTILITY PLANTS.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
1	Artesian Light Co	GD	Springfield	Springfield	Springfield	
2	Beresford Electric Light Plant	GD	Beresford	Beresford	Beresford	
3	Blunt Light & Power Co	GD	Blunt	Blunt	Blunt	
4	Breitback Electric Co	GD	Delmont	Delmont	Delmont	
5	Bridgewater Electric Power Co	GD	Bridgewater	Bridgewater	Bridgewater	
6	Britton Milling Co	GD	Britton	Britton	Britton	
7	Bushnell, R. A., Electric Light Plant	GD	Wessington Springs	Wessington Springs	Wessington Springs	
	Byllesby, H. M., & Co	M				
8	Consumers Power Co	GD	Sioux Falls and vicinity	Sioux Falls	Sioux Falls	
9	Do	GD	do	do	do	Big Sioux River
10	Electric Light & Power Co	GD		do	do	do
11	Canastota Electric Light Co	GD		Canastota		
12	Centerville Milling Co	GD	Centerville	Centerville		
13	Chamberlain Gas, Light & Power Co	GD	Chamberlain and Oacoma	Chamberlain	Chamberlain	
14	Chastka Bros. Electric Light Plant	GD	Tyndall	Tyndall	Tyndall	
15	Citizens Electric Co	GD	Garretson	Gary	Garretson	
16	Citizens Light & Power Co	GD		Ramona		
17	Consolidated Power & Light Co. of South Dakota	GD	Deadwood and vicinity	Pluma	Pluma	
18	Do	GD		Spearfish		Red Water River
19	Custer Electric Light, Heat & Power Co	GD	Custer	Custer	Custer	
20	Dakota Power Co	GD	Rapid City and vicinity	Big Bend	Big Bend	
21	Do	GD		Rapid City	Rapid City	
22	Dell Rapids Light & Power Co	GD	Dell Rapids	Baltic	Baltic	
23	Edgemont Electric Light Co	GD		Edgemont		
24	Estelline Electric Light Co	GD		Estelline		
	Eureka Light & Power Co	GD				
25	(Lessor, Aberdeen Engineering Co.)	L	Eureka	Eureka	Eureka	
26	Faulkton Light & Power Co	D	Faulkton			
	Ferris Bros. System	H				
27	Watertown Light & Power Co	GD	Watertown	Watertown	Watertown	
28	Yankton Light, Heat & Power Co	GD	Yankton	Yankton	Yankton	
29	Flandreau Light & Power Co	GD	Flandreau, Egan, and Colman.	Flandreau	Flandreau	
30	Fort Pierre Power Co	D	Fort Pierre			
31	Gordelia Mining Co	GD		Rockford		
32	Gregory Light & Power Co	GD	Gregory	Gregory	Gregory	
33	Groton Light, Heat & Power Co	GD	Groton	Groton	Groton	
34	Harrold Telephone & Electric Light Plant	GD		Harrold	Harrold	
35	Hartford Electric Light & Telephone Co	GD	Hartford and Humboldt	Hartford	Hartford	
36	Hayti Light & Power Co	GD	Hayti	Hayti	Hayti	
37	Hecla Light & Power Co	GD	Hecla	Hecla	Hecla	
38	Henry Light & Power Co	GD	Henry	Henry	Henry	
39	Hersey, C. B., Co	D	Langford	Langford		
40	Homestake Mining Co	GD	Spearfish	Spearfish	Spearfish	Spearfish Creek
41	Spearfish Electric Light & Power Co	GD	do	Englewood	do	
42	Hurley Light Co	GD	Hurley	Hurley	Hurley	
43	Huron Light & Power Co	GD	Huron	Huron	Huron	
44	Interstate Power Co	GTD	Armour	Armour	Armour	
45	Do	GTD	Lake Andes	Lake Andes	Lake Andes	
46	Do	GTD	Platte	Platte	Platte	
47	Do	GTD	Scotland	Scotland	Scotland	
48	Ipswich Electric Light & Power Co	GD	Ipswich	Ipswich	Ipswich	
49	Jensen Bros. Electric Light Plant	GD	Irene	Irene		
50	Lake Preston Milling Co	GD	Lake Preston and Hetland	Lake Preston	Lake Preston	
51	Liddle, L. W	GD	Iroquois	Iroquois	Iroquois	
	Light & Development Co. of St. Louis	H				
52	Mitchell Power Co	GD	Mitchell	Mitchell	Mitchell	
	Martin, B. H., Electric Light & Power Co	GD				
53	(Lessor, Dallas Electric Light, Heat & Power Co.)	L	Dallas	Dallas	Dallas	
54	Milbank Light & Power Co	GD	Milbank	Milbank	Milbank	
55	Miner County Milling & Lighting Co	GD	Howard and Canova	Howard	Howard	
56	Mobridge Electric Light, Heat & Power Co	GD	Mobridge	Mobridge	Mobridge	
57	Mortensen's Electric Light Plant	GD	Toronto	Toronto	Toronto	
58	Mueller Electric Light Co	GD	Tripp	Tripp	Tripp	
59	Onida Electric Light & Power Co	GD	Onida	Onida	Onida	
60	Pierpont Electric Light Co	GD		Pierpont		
61	Rapid River Milling Co			Rapid City		
62	Salem Milling, Lighting & Heating Co	GD	Salem	Salem	Salem	
63	Schenks Electric Light Plant	GD		Menno		
64	Schuler Electric Co	GD	Woonsocket	Woonsocket	Woonsocket	
65	Securities Investment Co	GD	Lemmon	Lemmon	Lemmon	
66	Sioux Valley Power Co	GD	Canton, Fairview, Inwood, Iowa.	Canton	Canton	
67	Sisseton Mill & Light Co	GD	Sisseton	Sisseton	Sisseton	
68	Sturgis Power & Light Co	D	Sturgis			
	Union Company of Omaha	H				
69	Aberdeen Light & Power Co	GD	Aberdeen	Aberdeen	Aberdeen	
70	Vermilion Milling & Electric Co	GD	Vermilion	Vermilion	Vermilion	
71	Viborg and Center Power & Telegraph Co	GD	Viborg	Viborg	Viborg	
72	Wakonda Light, Power & Heating Co	GD	Wakonda	Wakonda	Wakonda	
73	Water, Light & Power Co	GD	Hot Springs	Hot Springs	Hot Springs	Fall River
74	Waubay Motor Sales Co	GD	Waubay	Waubay	Waubay	
75	White Lake Light & Power Co	GD	White Lake	White Lake	White Lake	
76	Whitewood Light & Power Co	D	Whitewood	Whitewood		
77	Woodward, C. B	GD	Mount Vernon	Mount Vernon	Mount Vernon	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

SOUTH DAKOTA.

A.—PUBLIC UTILITY PLANTS.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower-year.	Purchases power from—	Source of information.
1	Private				40	15	$0.15	$0.15		Mc. C.
2			200	180		100	.15			Mc.
3					25	15				Mc.
4	Private				40	30	.20			C.
5					66	60				Mc. C.
6			80	80		50	.08	.08		Mc. C.
7					100	37½				Mc.
8			800	1,070		800				Mc. O.
9		2,000	840	2,670		3,500				Mc. M. O.
10		(65)				40				O. C.
11	Private				75	55	.20			C.
12		50	190	90		60				Mc.
13					150	125				Mc. C.
14			300	108		45				Mc.
15					85	24				Mc.
16					21	(15)	.075			C.
17			3,500	4,670		3,750				Mc. M. O.
18		1,000				1,000			Dakota Power Co.	Mc. M. O.
19	Private		300	150		50	.15			Mc. C.
20	Forest	2,400				1,500	$0.125–.09	$0.05–.125		Mc. M. C.
21		150	600	530		500				Mc. M. O.
22		150	100	(100)		100				Mc.
23						125				C.
24			(50)	(50)		32				O. C.
25					143	110				Mc.
26										Mc.
27	Private		750	650		487½	.15	.08		Mc. M.
28			300	400		425	.15	.08–.06		Mc. C.
29	Private	75			180	125				C.
30										Mc.
31		(10)				7				O.
32					100	120				Mc.
33	Private		125	100	65	100	.15–.125	.07		Mc. C.
34	Do				20	12½				
35					200	75				Mc.
36					35	28				O. Mc. C.
37			50	32		12½				Mc. C.
38	City				40	15	.20–.15	.20–.15		Mc. O.
39			80	65		15	.18			Mc. O.
40	Forest	6,000				6,000				Mc. O. C.
41		225	200	175		300				Mc. O.
42					85	50				Mc. C.
43	Private				500	300	.135–.06	.06		Mc. M. O.
44	Do				395	310	.15–.07	.11–.05		Mc. O.
45					50	40	.15			Mc. O.
46					90	50				Mc. O.
47					65	60				Mc. O.
48	Private				65	40	.15–.13	.15–.11		Mc. C.
49										Mc.
50	Private		190	230		50	.16–.15	.10–.08		Mc. C.
51			60	50		30				Mc.
52	Private		825	400	450	600	.10	.06		Mc. C.
53	Do				110	37½	.20–.10			Mc. C.
54					170	110				Mc.
55			175	175		75	.15–.10	.08		Mc. O.
56			250	175		111				Mc. C.
57					26	28				Mc.
58					(25)	15	.15			Mc.
59					71	42				Mc.
60	Private				22	(45)	.20			O.
61	Do									O.
62	Do		200	(150)		86	.15–.10			Mc. C.
63					55	35	.20			C.
64			70	50		45				Mc.
65	Private		200	80		60	.16–.10			C.
66	Do		240	185		175	.12–.08	.07–.05		Mc.
67			185	175		100				Mc.
68							.10–.02	.10–.02	Consolidated Power & Light Co.	Mc. C.
69			750	1,000		840	.20–.15	.20–.15		Mc. C.
70			200	225		225				Mc.
71	Private				40	30				Mc. C.
72					50	30				Mc.
73		450	100	100		450				Mc. O. C.
74					95	30	.15	.10		Mc. C.
75					25	15				Mc.
76									Consolidated Power & Light Co.	Mc.
77					74	17				Mc.
	Total, A	12,595	11,910	14,115	17,963	23,961				

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

SOUTH DAKOTA—Continued.

B.—MUNICIPAL PLANTS.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
78		GD	Arlington	Arlington	Arlington	
79		GD	Brookings	Brookings	Brookings	
80		GD	Bowdle	Bowdle	Bowdle	
81		GD	Bryant	Bryant	Bryant	
82		GD	Garretson	Garretson	Garretson	
83		GD	McIntosh	McIntosh	McIntosh	
84		GD	Madison	Madison	Madison	
85		GD	Miller	Miller	Miller	
86		GD	Oldham	Oldham	Oldham	
87		GD	Pierre	Pierre	Pierre	
88		GD	Redfield	Redfield	Redfield	
89		D	Sioux Falls	Sioux Falls		
90		GD	Tyndall	Tyndall	Tyndall	
91		GD	Valley Springs	Valley Springs	Valley Springs	
92		GD	Vienna	Vienna	Vienna	
93		GD	Webster	Webster	Webster	
94		GD	Wilmot	Wilmot	Wilmot	

C.—ALL OTHER PLANTS.

95	Hot Springs Irrigation & Live Stock Co			Cascade Creek		Cascade Creek
96	Rapid River Milling Co		Milling	Rapid City	Rapid City	

TENNESSEE.

A.—PUBLIC-UTILITY PLANTS.

1	Algood Electric Light Co	D	Algood	Algood	Algood	
2	Bay Mountain Electric Co	GD	Rockford and Maryville	Rockford	Rockford	Little River
3	Bell Buckle Milling Co	GD	Bell Buckle	Bell Buckle	Bell Buckle	
4	Big Brushy Coal Co			Petros		
5	Binghamton Light & Power Co	GD	Binghamton and Hiland Heights.	Binghamton	Binghamton	
6	Bluff City Electric Light & Power Co	D	Bluff City	Bluff City	Bluff City	
7	Brooks Manufacturing Co	GD	Bells	Bells	Bells	
8	Brownsville Cotton Oil & Ice Co	GD	Brownsville	Brownsville	Brownsville	
9	Chattanooga & Tennessee River Power Co	GTD	Chattanooga	Hales Bar		Tennessee River
	Clark, E. W., & Co., Management Corporation	M				
10	Chattanooga Railway & Light Co	GTD	Chattanooga and vicinity	Chattanooga, No. 1	Chattanooga	
11	Do	GTD	do	Chattanooga, No. 2	do	
12	Nashville Railway & Light Co	GTD	Nashville	Nashville	Nashville	
13	Tennessee Power Co	GTD	Eastern Tennessee and Northwestern Georgia.	Ocoee, No. 1	S. 24, T. 2 S., R. 2 E	Ocoee River
14	Do	GTD	do	Ocoee, No. 2	S. 2, T. 2 S., R. 3 E	do
15	Clifton Ice Co	GD	Clifton	Clifton	Clifton	
16	Clinton Electric Light Co	GD	Clinton	Clinton	Clinton	
17	Coal Creek Electric Light Co	GD	Coal Creek and Briceville	Coal Creek	Coal Creek	
18	Coats, J. H., & Co	GD	Greenfield	Greenfield	Greenfield	
19	Columbia Water & Light Co	GD	Columbia	Columbia	Columbia	
	Cunningham, E. M.	GD				
20	(Lessor, Mount Pleasant Electric Co.)	L	Mount Pleasant	Mount Pleasant	Mount Pleasant	
21	Davis-Elam Gas & Electric Co	GD	Murfreesboro	Murfreesboro	Murfreesboro	
	Doherty Operating Co	M				
22	Bristol Gas & Electric Co	GD	Bristol, Tennessee, and Virginia.	Bristol	Bristol	
23	Watauga Power Co	GD	Sullivan and Carter Counties.	Wilbur		Watauga River
24	Dyer Fruit Box Manufacturing Co	GD	Dyer	Dyer	Dyer	
	Erin Electric Light Co	GD				
25	(Lessor, A. B. Gibson)	L	Erin	Erin	Erin	
26	Etowah Water & Light Co	D	Etowah	Etowah	Etowah	
27	Fayetteville Electric Light & Power Co	GD	Lafayetteville	Lafayetteville		
	General Utilities & Operating Co	H				
28	Rockford Electric Co	GD	Maryville	Maryville	Maryville	
29	Henning Light & Ice Co	GD	Henning	Henning	Henning	
30	Isabell, J. A	GD	Baxter	Baxter	Baxter	
31	Jackson Railway & Light Co	GTD	Jackson and Hicksville	Jackson	Jackson	
32	Jefferson City Milling & Electric Co	GD	Jefferson City	Jefferson City	Jefferson City	
33	Jellico Electric Light, Heat & Power Co	GD	Jellico	Jellico	Jellico	
34	La Follette Water, Light & Telephone Co	GD	La Follette	La Follette	La Follette	
35	Laylor, S. W	GD	McEwen	McEwen	McEwen	
36	Lenoir Light & Power Co	D	Lenoir City	Lenoir City		
37	Lewisburg Light & Power Co	GD	Lewisburg and Cornersville	Lewisburg	Lewisburg	
	Long Manufacturing Co	H				
38	Athens Light & Power Co	GD	Athens	Athens	Athens	
39	Loudon Hosiery Mills	D	Loudon	Loudon		
40	Memphis Consolidated Gas & Electric Co	GD	Memphis and vicinity	Memphis	Memphis	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

SOUTH DAKOTA—Continued.

B.—MUNICIPAL PLANTS.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or h.p.-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
78			70	60	40	67				Mc. C.
79			300	280		210				Mc.
80			130	130		130				C.
81					25	24				Mc.
82					55	36				Mc. C.
83					(135)	25				Mc. C.
84					325	200	$0.10	$0.09		Mc. C.
85					95	100				Mc.
86	Private				40	22	$0.21- .19	$0.21- .19		Mc. C.
87				500		(300)				Mc.
88			300	200		175				Mc. C.
89									Consumers Power Co.	Mc.
90					150	95				Mc.
91					84	46	.125			C.
92					36	22½				Mc.
93			250	250		200				Mc.
94					43	30				Mc.
	Total, B		1,050	1,420	936	1,645				

C.—ALL OTHER PLANTS.

95		(370)				225				O.
96		88				(50)				C.
	Total, C	458				275				
	Grand total	13,053	12,960	15,535	18,899	25,881				

TENNESSEE.

A.—PUBLIC-UTILITY PLANTS.

1	Private		(30)	35		25				Mc. C.
2		250				200	$0.015	$0.015		C.
3	Private		125	100		65	.125			Mc. C.
4										Mc.
5			250	350		285				Mc.
6							$0.10- .08	$0.035- .025	Watauga Power Co.	Mc. C.
7			120	45		30				Mc.
8			(300)	450		262½				Mc.
9		42,000				31,330				Mc. M. O.
10			4,540	7,500		5,000			Tennessee Power Co.	Mc. M. C.
11			1,360	2,500		2,000				Mc. M. C.
12			11,250	20,000		16,750	.12		Tennessee Power Co.	Mc. M. C.
13	Private	25,000				18,750		.015- .006	Chattanooga & Tennessee River Power Co.	Mc.M.O.C.
14	Do	20,000				15,000			do	Mc.M.O.C.
15			160	100		30				Mc.
16			100	75		75				Mc.
17			125	210		35				Mc.
18	Private		160	90		82				Mc. C.
19			400	450		350				Mc. M.
20	Private		150	100		90	.20- .09			Mc. C.
21		350	200	188		250			Tennessee Power Company	Mc.
22	Private		850	800		700	.10- .06	.08 - .0075	Watauga Power Co.	Mc. M. C.
23	Do	3,200				2,400	.10- .066	.08 - .0075		Mc.M.O.C.
24			(150)	200		125	.15			Mc. C.
25	Private		100	75		50				C.
26	Do						.10	.05	Tennessee Power Co.	Mc. C.
27		100	300	25		350				Mc.
28			100	60		275			Bays Mountain Power Co.	Mc. C.
29										Mc.
30	Private		30			15	.10			C.
31	Do		912	1,670		1,500	.15- .03	.06 - .03		Mc. C.
32			300	250		125				Mc.
33			400	450		320				Mc.
34	Private		450	225		150	.15	.07		Mc. M.
35			125	70		60			Tennessee Power Co.	Mc.
36										Mc.
37	Private		275	225		150	.10	.08 - .03		Mc. C.
38	Do	60	100	100		85	.10- .05	.10 - .03	Tennessee Power Co.	Mc. C.
39										Mc.
40			7,150	11,500		11,500	.10- .04	.10 - .02		Mc. M. C.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

TENNESSEE—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
41	Merchants Power Co	GD	Memphis	Memphis	Memphis	
42	Monterey Electric Co	GD	Monterey	Monterey	Monterey	
43	Newport Mill Co	GD	Newport	Newport	Newport	
44	Oliver Springs Electric Light & Power Co	GD	Oliver Springs	Oliver Springs	Oliver Springs	
45	Petros Electric Light Co	D	Petros	Petros		
46	Priestly-Loyd Light & Power Co	GD	Henderson	Henderson	Henderson	
47	Public Light & Power Co	GD	Rhea County	Dayton	Dayton	
48	Do	GD	Rockwood	Rockwood	Rockwood	
49	Do	GD	Bedford, Coffee, and Franklin Counties.	Shelbyville		
50	Do	GD	do	Winchester		
51	Rhea Springs Light & Power Co	D	Rhea Springs	Rhea Springs	Rhea Springs	
52	Ripley Light, Water & Ice Co	GD	Ripley	Ripley	Ripley	
53	Rogersville Electric Co	GD	Rogersville	Rogersville		
54	Selmer Electric Light & Gin Co., The	GD	Selmer	Selmer	Selmer	
55	South Pittsburg Light & Power Co	GD	South Pittsburg	South Pittsburg	South Pittsburg	
56	Tennessee Eastern Electric Co	HGD	Greene and Washington Counties.	Nolichucky		Nolichucky River
57	Johnson City Traction Corporation	GD	do	Johnson City	Johnson City	
	United Gas & Electric Corporation of Connecticut.	H				
58	Knoxville Railway & Light Co	GTD	Knoxville and vicinity	Knoxville	Knoxville	
59	Walling Light & Power Co	GD	McMinnville	McMinnville		
60	Waverly Light & Water Co	GD	Waverly	Waverly	Waverly	

B.—MUNICIPAL PLANTS.

61		GD	Bolivar	Bolivar	Bolivar	
62		GD	Colliersville	Colliersville	Colliersville	
63		GD	Cookeville	Cookeville	Cookeville	
64		GD	Covington	Covington	Covington	
65		GD	Dickson	Dickson	Dickson	
66		GD	Dyersburg	Dyersburg	Dyersburg	
67		GD	Gallatin	Gallatin	Gallatin	
68		GD	Halls and Gates	Halls	Halls	
69		GD	Harriman	Harriman	Harriman	
70		GD	Humboldt	Humboldt	Humboldt	
71		GD	Huntingdon	Huntingdon	Huntingdon	
72		GD	Jackson	Jackson	Jackson	
73		GD	Lawrenceburg	Lawrenceburg		
74		D	Lebanon	Lebanon	Lebanon	
75		GD	McKenzie	McKenzie	McKenzie	
76		GD	McMinnville	McMinnville	McMinnville	
77		GD	Martin	Martin	Martin	
78		GD	Milan	Milan	Milan	
79		GD	Millington	Millington	Millington	
80		GD	Morristown	Morristown	Morristown	
81		GD	Newbern	Newbern	Newbern	
82		GD	Obion	Obion	Obion	
83		GD	Paris	Paris	Paris	
84		GD	Pulaski	Pulaski	Pulaski	
85		GD	Somerville	Somerville	Somerville	
86		GD	Springfield	Springfield	Springfield	
87		GD	Trenton	Trenton	Trenton	
88		GD	Tullahoma	Tullahoma	Tullahoma	
89		GD	Union City	Union City	Union City	

C.—ALL OTHER PLANTS.

90	United Gas & Electric Corporation of Conn.: Memphis Street Ry. Co	G	Electric railway	Memphis	Memphis	

TEXAS.

A.—PUBLIC UTILITY PLANTS.

1	Agricultural & Mechanical College Electric Light Plant.	GD	College Station	College Station	College Station	
2	Alpine Light & Ice Co	GD	Alpine	Alpine	Alpine	
3	Alto Light & Ice Co	GD	Alto	Alto	Alto	
	American Light & Traction Co	H				
4	San Antonio Gas & Electric Co	GD	San Antonio	San Antonio	San Antonio	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

TENNESSEE—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
41			3,000	7,330		5,500				Mc. M.
42			125	100		75	$0.15	$0.08		Mc. C.
43						150				Mc.
44			100	80		60				Mc.
45									Big Bursley Coal Co.	Mc.
46	Private				80	55	.10			Mc. C.
47			200	225		110	$0.08– .05	$0.05– .02		Mc. M. C.
48			250	300		90				Mc. M.
49		500	500	600		700			Chattanooga & Tennessee River Power Co.	Mc. M.
50		480	100	125		367½				Mc. M.
51	Private								Spring City	Mc. C.
52	Do		250	350		162	.15– .10	.15		Mc. C.
53		200	150	140		225				Mc.
54	Private		60	125		35				C.
55			100	136		60				Mc.
56	Private	5,000	900	1,100		5,250	.08– .06	.04– .01		Mc.M.O.C.
57			900	1,170		650				Mc. M.
58	Private		3,900	9,070		6,800	.10	.09– .009	Tennessee Power Co.	Mc. M. C.
59		395				325				Mc.
60			150	100		45				
	Total, A	97,535	41,362	68,824	80	129,074				

B.—MUNICIPAL PLANTS.

61			120	120		60				Mc.
62			100	65		60	$0.10			C.
63	Private		100	130		100	.125	$0.10		Mc. C.
64			460	500		300				Mc.
65			228	140		90	.10			Mc. C.
66			600	579		435	$0.15– .09	$0.06– .03		Mc. C.
67	Private		275	250		250	.115	.09– .03		Mc. C.
68			125	60		75				Mc.
69	Private		400	255		375	.066	.04		Mc. C.
70			537	325		250				Mc. C.
71			175	125		90				Mc.
72	Private		400	200		60				Mc. C.
73		300				250				Mc.
74									Cedar City Milling Co.	Mc.
75			100	87		75	.125			Mc. C.
76			170	240		150				Mc.
77			310	370		225				Mc.
78			160	125		85				Mc.
79			65	35		25				Mc.
80			375	600		450				Mc.
81			275	210		135				Mc.
82			100	150		75				Mc.
83	Private		500	750		450	.08– .06	.08– .028		Mc. C.
84					225	200				Mc.
85	Private		200	140		85				Mc. C.
86	Do		280	400		250	.13– .05	.10– .02		Mc. C.
87			180	150		150				Mc.
88			250	200		150			Stone Fort Power Co.	Mc.
89			240	215		350				
	Total, B	300	6,725	6,421	225	5,250				

C.—ALL OTHER PLANTS.

90	Private		7,820	13,900		8,800				Mc. M. C.
	Total, C		7,820	13,900		8,800				
	Grand total	97,835	55,907	89,145	305	143,124				

TEXAS.

A.—PUBLIC UTILITY PLANTS.

1			1,500	1,000		450				Mc.
2					130	90				Mc.
3	Private				105	75	$0.20–$0.07	$0.20–$0.03		C.
4	Do		6,653	12,278		9,015	.12– .04	.05– .02		M. Mc. C.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY

TEXAS—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
	American Power & Light Co					
5	Fort Worth Power & Light Co	GD	Fort Worth	Fort Worth	Fort Worth	
6	International Electric Co	GD	Eagle Pass and points in Mexico.	EaglePass	Eagle Pass	
7	Texas Power & Light Co	GD	Bartlett	Bartlett	Bartlett	
8	Do	GD	Bonham	Bonham	Bonham	
9	Do	GD	Brownwood	Brownwood	Brownwood	
10	Do	GD	Commerce	Commerce	Commerce	
11	Do	GD	Denison and Sherman	Denison	Denison	
12	Do	GD	Gainesville	Gainesville	Gainesville	
13	Do	GD	Collin, Grayson, and Dallas Counties.	McKinney	McKinney	
14	Do	GD	Palestine	Palestine	Palestine	
15	Do	GD	Paris	Paris	Paris	
16	Do	GD	Sherman	Sherman	Sherman	
17	Do	GD	Taylor	Taylor	Taylor	
18	Do	GD	Temple	Temple	Temple	
19	Do	GD	Tyler	Tyler	Tyler	
20	Do	GD	Waco and Corsicana	Waco	Waco	
21	West Texas Electric Co	GD	Big Spring	Big Spring	Big Spring	
22	Do	GD	Sweet Water	Sweet Water	Sweet Water	
23	Wichita Falls Electric Co	GD	Wichita County	Wichita Falls	Wichita Falls	
	American Public Service Co	H				
24	Abilene Gas & Electric Co	GD	Abilene and Merkel	Abilene	Abilene	
25	Baird Light & Ice Co	GD	Baird	Baird	Baird	
26	Cisco Gas & Electric Co	GD	Cisco	Cisco	Cisco	
27	Jefferson Ice & Light Co	GD	Jefferson	Jefferson	Jefferson	
28	Longview Ice & Light Co	GD	Longview	Longview	Longview	
29	Marshall Electric Co	GD	Marshall	Marshall	Marshall	
30	Merkel Electric Co	D	Merkel	Merkel	Merkel	
31	Ashcroft, B. F., & Sons	GD	Sulphur Springs	Sulphur Springs	Sulphur Springs	
32	Atascosa Ice, Water & Light Co	GD	Jourdanton	Jourdanton	Jourdanton	
33	Athens Electric Light & Power Co	GD	Athens	Athens	Athens	
34	Ballinger Cotton Oil Co	GD	Ballinger	Ballinger	Ballinger	
35	Barstow Electric Co	GD	Barstow	Barstow	Barstow	
36	Bastrop Water, Light & Ice Co	GD	Bastrop	Bastrop	Bastrop	
37	Belleville Promoting Co	GD	Belleville	Belleville	Belleville	
38	Blankenship, Arthur, Light Plant	GD	San Diego	San Diego	San Diego	
39	Boerne Electric Power & Manufacturing Co	D	Boerne	Boerne	Boerne	
40	Bremond Electric Light Plant	GD	Bremond	Bremond	Bremond	
41	Brenham Compress Oil & Manufacturing Co	GD	Brenham	Brenham	Brenham	
42	Bridgeport Brick Co	GD	Bridgeport	Bridgeport	Bridgeport	
43	Brunner Water & Light Co	GD	Brunner	Brunner	Brunner	
44	Bryan Power Co. (Inc.)		Bryan	Bryan		
45	Caldwell Electric Power & Ice Co	GD	Caldwell	Caldwell	Caldwell	
46	Calvert Water, Ice & Electric Light Co	GD	Calvert	Calvert	Calvert	
47	Cameron Water, Power & Light Co	GD	Cameron	Cameron	Cameron	
48	Canadian Water, Light & Power Co	GD	Canadian	Canadian	Canadian	
49	Canyon Power Co	GD	Canyon	Canyon	Canyon	
50	Central Power & Transportation Co	GD	Bosque, Erath, and Hamilton Counties.	Hico	Hico	
51	Chamblee & Phipps Electric Plant	GD	Atlanta	Atlanta	Atlanta	
52	Childress Ice & Light Co	GD	Childress	Childress	Childress	
53	City Ice & Electric Co	GD	Del Rio	Del Rio		
54	City Light & Power Co	GD	Killeen	Killeen	Killeen	
55	City Water & Light Co	GD	Anson	Anson	Anson	
56	City of Weatherford Water, Light & Ice Co	GD	Weatherford	Weatherford	Weatherford	
57	Citizens Electric Light & Power Co	GD	Gonzales	Gonzales	Gonzales	Guadalupe River
58	Citizens Light & Power Co	GD	Wichita Falls	Wichita Falls	Wichita Falls	
59	Clarendon Light & Power Co	GD	Clarendon	Clarendon	Clarendon	
60	Clarksville Light Co	GD	Clarksville	Clarksville	Clarksville	
61	Colorado River Power Co	GD	Austin and vicinity	Marble Falls	Marble Falls	Colorado River
62	Columbus Light Co	GD	Columbus	Columbus	Columbus	
63	Conroe Gin & Light Co	D	Conroe	Conroe	Conroe	
64	Copper Electric Co	GD	Cooper	Cooper	Cooper	
65	Corpus Christi Railway & Lighting Co	GD	Corpus Christi	Corpus Christi	Corpus Christi	
66	Corsicana Gas & Electric Co	GD	Corsicana	Corsicana	Corsicana	
67	Crocket Ice, Electric Light & Power Co	GD	Crockett	Crockett	Crockett	
68	Dabney, A. D., Light Plant	GD	Eastland	Eastland	Eastland	
69	Dalhart Ice & Electric Co	GD	Dalhart	Dalhart	Dalhart	
70	Dallas Ice Factory, Light & Power Co	GD	Dallas	Dallas	Dallas	
71	De Leon-Gorman Light & Power Co	GD	De Leon and Gorman	De Leon	De Leon	
72	Denton Traction Co	GD	Denton	Denton	Denton	
	Doherty Operating Co	M				
73	Amarillo Street Ry. Co	GD	Amarillo	Amarillo	Amarillo	
74	Brush Electric Co	GD	Galveston	Galveston	Galveston	
75	Central Service Co	GD	El Campo	El Campo	El Campo	
76	City Light & Water Co	GD	Amarillo	Amarillo	Amarillo	
77	Rio Grande Public Service Corporation	GD	McAllen	McAllen	McAllen	
78	Edna Light, Ice & Water Co	GD	Edna	Edna	Edna	
79	Electric Light & Ice Co	GD	Leonard	Leonard	Leonard	
80	Elgin Light & Power Co	GD	Elgin	Elgin	Elgin	
	Emanuel, Albert, Co	M				
81	Texas Public Service Co	GD	Bay City and vicinity	Bay City	Bay City	
82	Do	GD	Gilmer and vicinity	Gilmer	Gilmer	
83	Do	GD	Mount Pleasant and vicinity	Mount Pleasant	Mount Pleasant	
84	Do	GD	Vernon and vicinity	Vernon	Vernon	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

TEXAS—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from	Source of information.
5	Private		7,600	17,330		13,000	$0.11–$0.05	$0.05–$0.01		Mc. O. C.
6			1,076	1,700		1,255	.16– .08	.06– .02		Mc. C.
7					90	120				Mc. C.
8	Private		300	325		210	.14– .07	.055– .01		Mc. C.
9	Do		397	235	450	725	.15– .08	.055– .01		M. C.
10	Do		300	175		150	.15– .07			C.
11	Do		1,755	1,550		1,370	.14– .07	.055– .01		Mc. C.
12	Do				700	707	.15– .08	.055– .01		Mc. C.
13	Do		2,000	2,670		2,500				C.
14	Do		712	750		675	.15– .08	.055– .01		Mc. C.
15	Do		1,000	1,100		1,110	.14– .07	.055– .01		Mc. C.
16	Do				675	470	.14– .07	.055– .01		Mc. C.
17	Do		300	625	225	612	.15– .08	.055– .01		Mc. C.
18	Do		1,112	1,870		1,350	.14– .07	.055– .01		Mc. C.
19	Do		350	450	900	1,275	.15– .08	.055– .01		Mc. C.
20	Do		4,216	11,700		10,950	.14– .07	.055– .01		Mc. O. C.
21			250	300	225	200				Mc.
22			300	440	400	150				Mc.
23	Private		1,350	1,825		2,200	.07	.05		Mc. C.
24	Do		816	1,175	450	1,125	.15– .06	.10– .015		M. Mc. C.
25	Do		150	110		100	.15– .125			C.
26			370	450		225				M. Mc. C.
27	Private		200	200		60	.20– .08	.06– .015		Mc. C.
28			550	200	225	450	.12– .08	.06		C.
29	Private		1,060	1,020	300	1,025	.13– .09	.06– .012		M. Mc. C.
30	Do						.15– .10	.06– .03		C.
31			400	500		310				Mc. C.
32			300	350		100				Mc.
33	Private		175	170		175	.20			Mc. C.
34			600	400		300				Mc.
35					16	6				Mc.
36			200	220		125				Mc.
37	Private		250	160		100	.20– .10	.10		Mc. C.
38					60	30				Mc.
39										Mc.
40					38	37				Mc.
41			1,000	650	120	600				Mc.
42	Private		100	100		60	.15			Mc. C.
43			125	100		75				Mc.
44					225	300	.06– .04	.045– .0125		C.
45			205	165		105				Mc.
46			364	380		200				Mc.
47	Private		600	550	500	800	.20– .10	.075– .035		M. Mc. C.
48					200	100				Mc.
49	Private		180	165		105	.15	.10		Mc. C.
50			250	130		100				Mc.
51			200	80		60				Mc.
52	Private		300	300		175	.15– .12	.10– .06		Mc. C.
53		102	250	275		225				Mc.
54			85	70		72½				Mc.
55			80		120	75				Mc.
56			310	325		275				Mc.
57	Private	1,190	300	250		850	.15	.05		Mc. C.
58	Do				150	125	.10– .05	.04		C.
59					150	100				M. Mc. C.
60			350	350		175	.20– .05	.10– .05		Mc. C.
61		1,650				1,050				O.
62	Private				95	60	.15	.10		Mc. C.
63										Mc.
64	Private		250	180		101	.15– .08	.06– .02		C.
65			900	740	450	1,231	.15– .06	.06– .04		Mc. C.
66			825	525		560	.14– .09		Texas Power & Light Co.	M. Mc.
67	Private		180	250		135	.15– .10	.10– .05		Mc. C.
68					50	60				Mc.
69	Private		300	300		340	.15– .09	.10– .067		Mc. C.
70	Do		2,000	2,350		1,850	.05– .03	.10– .03		M. Mc. C.
71			160	120		100				Mc.
72			(200)	240		100				M. Mc.
73	Private		300	200		150			City Light & Water Co.	C.
74			2,600	4,000		3,850				Mc. M.
75	Private		220	100	160	200	.15– .06	.05– .03		C.
76	Do		1,100	1,750		1,400	.15– .05	.03		C.
77	Do				80	50	.15– .06			C.
78			250	90	60	80				Mc. C.
79			160	80		(50)				Mc.
80			200	140		125				Mc.
81	Private		300	325		150	.15– .10	.10– .05		M. Mc. C.
82	Do		275	225		150	.15– .10	.09– .04		M. Mc. C.
83	Do		425	380		320	.15– .08	.09– .04		M. Mc. C.
84	Do		275	300		225	.15– .10	.10– .05		M. Mc. C.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

TEXAS—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
85	Farmersville Mill & Light Co	GD	Farmersville	Farmersville	Farmersville	
86	Fentress Gin Co	GD	Fentress	Fentress	Fentress	San Marcos River
87	Flach, E., Electric Light Plant	GD	Comfort	Comfort	Comfort	Guadalupe River
88	Flatonia Ice Water & Electric Co	GD	Flatonia	Flatonia	Flatonia	
89	Forney Water & Ice Co	GD	Forney	Forney	Forney	
90	Fort Stockton Light & Power Co	GD	Fort Stockton	Fort Stockton	Fort Stockton	
91	Franklin Water & Light Co	GD	Franklin	Franklin	Franklin	
92	Fredericksburg Light & Power Co	GD	Fredericksburg	Fredericksburg	Fredericksburg	
93	Frisco Ice & Light Co	GD	Frisco	Granberry	Frisco	
94	Freeport Light, Water & Ice Co	GD	Freeport	Freeport	Freeport	
95	Garrison Light Co		Garrison	Garrison	Garrison	
96	Gatesville Electric Light & Power Co	GD	Gatesville	Gatesville	Gatesville	
97	Giddings Cotton Oil Co	GD	Giddings	Giddings	Giddings	
98	Goldthwaite Light & Ice Co	GD	Goldthwaite	Goldthwaite	Goldthwaite	
99	Goliad Supply Co	GD	Goliad	Goliad	Goliad	
100	Gollihar, C., Light Plant	GD	Whitney	Whitney	Whitney	
101	Graham Electric Co	GD	Graham	Graham	Graham	
102	Granbury Water, Ice, Light & Power Co	GD	Granbury	Granbury	Granbury	
103	Grand Saline Electric Co	GD	Grand Saline	Grand Saline	Grand Saline	
104	Granger Oil Mill	GD	Granger	Granger	Granger	
105	Grapevine Light & Ice Co	GD	Grapevine	Grapevine	Grapevine	
106	Groesbeck Electric Co	GD	Groesbeck	Groesbeck	Groesbeck	
107	Groveton Light & Ice Co	GD	Groveton	Groveton	Groveton	
108	Haff & Harris	GD	Comanche	Comanche	Comanche	
109	Hamilton Light & Power Co	GD	Hamilton	Hamilton	Hamilton	
110	Haskell Ice & Light Co	GD	Haskell and Rule	Haskell	Haskell	
111	Hempstead Light & Power Co	GD	Hempstead	Hempstead	Hempstead	
112	Henderson Cotton Oil & Gin Co	GD	Henderson	Henderson	Henderson	
113	Hereford Electric Light & Power Co	GD	Hereford	Hereford	Hereford	
114	Home Light & Power Co	GD	Mart and Riesel	Mart	Mart	
115	Home Light & Power Co (Canuteson)	D	Moody	Moody	Moody	
116	Home Light, Water & Ice Co	GD	Blooming Grove	Blooming Grove	Blooming Grove	
117	Hondo Light, Power & Ice Co	GD	Hondo	Hondo	Hondo	
118	Honey Grove Ice & Electric Co	GD	Honey Grove	Honey Grove	Honey Grove	
119	Humble Water, Light & Ice Co	GD	Humble	Humble	Humble	
120	Huntsville Electric Light & Power Co	GD	Huntsville	Huntsville	Huntsville	
121	Ice, Water & Light Co	GD	Midlothian	Midlothian	Midlothian	
	Interstate Electric Corporation	H				
122	San Angelo Water, Light & Power Co	GD	San Angelo	San Angelo	San Angelo	
123	Jacksboro Ice & Light Co	GD	Jacksboro	Jacksboro	Jacksboro	
124	Jacksonville Ice & Electric Co	GD	Jacksonville	Jacksonville	Jacksonville	
125	Jefferson Ice & Light Co	GD	Jefferson	Jefferson	Jefferson	
126	Johnson Gin & Electric Co	GD	Wills Point	Wills Point	Wills Point	
127	Jeanes, E. F., Gin Co	GD	San Augustine	San Augustine	San Augustine	
128	Kaufman Electric Light Co	GD	Kaufman	Kaufman	Kaufman	
129	Kemp Electric Light Co	GD	Kemp	Kemp	Kemp	
130	Kenedy Electric Light Co	GD	Kenedy	Kenedy	Kenedy	
131	Kerens Electric Light & Power Co	D	Kerens	Kerens	Kerens	
132	Kerrville Electric Light, Heat & Power Co	GD	Kerrville	Kerrville	Kerrville	
133	Killough, J. H	GD	La Grange	La Grange	La Grange	
134	Ladonia Electric Co	GD	Ladonia	Ladonia	Ladonia	
135	Lampasas Light & Power Co	GD	Lampasas	Lampasas	Lampasas	
136	Landa Electric Light & Power Co	GD	New Braunfels	New Braunfels	New Braunfels	
137	Laporte Water, Light & Ice Co	GD	La Porte	La Porte	La Porte	
138	Laredo Electric & Railway Co (The)	GD	Laredo and Nueva Laredo	Laredo	Laredo	
139	Lasater, Ed. C., Power Co	GD	Falfurrias	Falfurrias	Falfurrias	
140	Lewisville Light & Power Co	GD	Lewisville	Lewisville	Lewisville	
141	Light & Power Co	D	Sourlake and Saratoga	Sourlake	Sourlake	
142	Livingston Manufacturing Co	GD	Livingston	Livingston	Livingston	
143	Llano Milling & Manufacturing Co	GD	Llano	Llano	Llano	Llano River
144	Lockney Light & Power Co	GD	Lockney	Lockney	Lockney	
145	Lott Electric Co	GD	Lott	Lott	Lott	
146	Lubbock Light & Ice Co	GD	Lubbock	Lubbock	Lubbock	
147	Lufkin Electric Light & Power Co	GD	Lufkin	Lufkin	Lufkin	
148	Luling Electric Light & Power Co	GD	Luling	Luling	Luling	
149	McGregor Water & Light Co	GD	McGregor	McGregor	McGregor	
150	McKinney Ice, Light & Coal Co	GD	McKinney	McKinney	McKinney	
151	McLelland & Son Light Plant	D	Thornton	Thornton	Thornton	
152	Malone Ice & Light Co	GD	Plainview	Plainview	Plainview	
	Marble Falls Water & Power Co	GD				
153	(Lessor, M. M. Berry)	L	Marble Falls	Marble Falls	Marble Falls	Colorado River
154	Marfa Electric Light & Ice Co	GD	Marfa	Marfa	Marfa	
155	Marlin Ice & Electric Light Co	GD	Marlin	Marlin	Marlin	
156	Mason Ice & Power Co	GD	Mason	Mason	Mason	
157	Memphis Ice & Electric Co	GD	Memphis	Memphis	Memphis	
158	Midland Light & Ice Co	GD	Midland	Midland	Midland	
159	Mineola Ice, Light & Water Co	GD	Mineola	Mineola	Mineola	
160	Mineral Wells Electric Co	GTD	Mineral Wells	Mineral Wells	Mineral Wells	
161	Mount Vernon Electric Light Co	GD	Mount Vernon	Mount Vernon	Mount Vernon	
162	Nance, J. D	GD	Troup	Troup	Troup	
163	Navasota Ice, Light, Power & Water Co	GD	Navasota	Navasota	Navasota	
164	Nocona Ice & Light Co	GD	Nocona	Nocona	Nocona	
165	Northern Texas Utilities Co	GD	Bowie	Bowie	Bowie	
166	Do	GD	Carthage	Carthage	Carthage	
167	Do	GD	Clifton	Clifton	Clifton	
168	Do	GD	Henrietta	Henrietta	Henrietta	
169	Do	GD	Royse City	Royse City	Royse City	
170	Orange Ice, Light & Water Co	GD	Orange	Orange	Orange	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

TEXAS—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
85			300	150		100				Mc.
86		100	275	175		16				Mc. C.
87		110	125	90		30				Mc. C.
88	Private		100	75		50	$0.20 -$0.125	$0.125		Mc. C.
89			200	80		50				Mc. C.
90	Private		300	140		100	.18 - .15			Mc. C.
91			(50)	60		20				Mc.
92			80	60		30				Mc.
93			180	175		75	.15			Mc.
94			700	300		250	.15 - .09			Mc. C.
95	Private		60	45		30				C.
96					75	75				Mc.
97			85	75		26	.16			Mc. C.
98			100	90		65	.20			Mc. C.
99	Private		180	75	55	87½	.15 - .125	.06		Mc. C.
100			60	60		45				Mc.
101			100	90		80	.20 - .10	$0.10 - .04		Mc. C.
102	Private		205	120		60	.15			C.
103			145	120		140				Mc.
104			460	125		75				Mc.
105			120		25	20				Mc.
106			75	60		50				Mc.
107			200	200		100				Mc.
108	Private		250	150		200	.15			Mc. C.
109			125	100		41				Mc.
110	Private		200	150		100	.19			Mc. C.
111			80	45	80	30			Hempstead Oil Mill	Mc.
112	Private		225	400		150	.20			Mc. C.
113	Do		150	125		160	.15	.15		Mc.C.
114	Do		540	475	100	475	.15 - .10	.075- .05		Mc. C.
115									Texas Power & Light Co.	Mc.
116					60	37.4				Mc.
117	Private		150	100		42½				Mc. C.
118			240	250	50	200				Mc.
119			130	85		160				Mc.
120	Private		350	290		205	.15 - .10	.125- .10		Mc. C.
121					100	50	.18 - .13	.08 - .05		Mc. C.
122	Private		750	1,100		750	.15 - .06	.10 - .04		Mc. C.
123					(100)	60				Mc.
124	Private		450	240	250	555	.20	.07 - .04		Mc. C.
125			200	200		60				Mc.
126			150	200		180				M. Mc.
127					225	225				Mc.
128			200	175		150	.20 - .10	.08 - .05		Mc. C.
129					32	17½				Mc.
130					50	37½				Mc.
131									Corsicana Gas & Electric Co.	Mc.
132			125	108		75				Mc.
133			200	200		150	.15 - .08			Mc. C.
134					62	50				Mc.
135	Private		225	305		155				Mc. C.
136	Private	700		150	300	875	.175- .06	.05 - .026		Mc. C.
137					150	90				Mc.
138			1,100	1,100	800	1,350	.15			C.
139	Private		200	270	18	57½	.20	.10		Mc. C.
140					25	25				Mc.
141										Mc.
142			30	70	20	35				Mc.
143	Private	180	200	125		175	.20	.10		Mc. C.
144					40	30				Mc.
145	Private		70	35	25	20	.18	.12		C.
146			250	350		75	.20			Mc.
147			300	375		250				Mc.
148		170	60	275		90				Mc.
149					240	205				Mc.
150			350	250		335	.10	.05		Mc. C.
151										Mc.
152			300	350		125				Mc.
153	Private	165				100	.20	.20		C.
154	Do				130	90	.20			Mc. C.
155			500	550		350				Mc.
156			70	70		30	.20			Mc. C.
157			200	250		150	.15	.10 - .05		Mc. C.
158					150	75				Mc.
159	Private		250	125	90	150	.15 - .06			Mc. C.
160			750	1,150		825				Mc.
161	Private		100	75		50	.15			C.
162					25	20	.20 - .15	.10		Mc. C.
163			550	190	225	360	.15 - .10	.10 - .075		Mc. C.
164	Private		100	60		75	.20 - .125	.125- .07		Mc. C.
165			100	170		135				Mc.
166			300	300		200				Mc.
167			125	150		110				Mc.
168					150	125				Mc.
169					70	25				
170	Private		600	255		255	.15	.06	Yellow Pine Paper Mill Co.	Mc. C.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

TEXAS—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
171	Orient Consolidated Pure Ice Co	GD	Hamlin	Hamlin	Hamlin	
172	Ozona Improvement Co	GD	Ozona	Ozona	Ozona	
173	Pharr Ice, Light & Power Co	GD	Pharr	Pharr	Pharr	
174	Pagel, Frank, Light Plant	GD	Shiner	Shiner	Shiner	
175	Pearsall Water, Ice & Light Co	GD	Pearsall	Pearsall	Pearsall	
176	Peoples Light Co	GD	Corpus Christi	Corpus Christi	Corpus Christi	
177	Pilot Point Ice & Power Co	GD	Pilot Point	Pilot Point	Pilot Point	
178	Pittman Ice & Electric Co	GD	Center	Center	Center	
179	Port Lavaca Industrial Co	GD	Port Lavaca	Port Lavaca	Port Lavaca	
180	Post Power Co	GTD	Post	Post	Post	
181	Pleasanton Ice & Electric Co	GD	Pleasanton and North Pleasanton.	Pleasanton	Pleasanton	
182	Richmond Electric Light Co	GD	Richmond	Richmond	Richmond	
183	Riesel Light & Power Co		Riesel	Riesel	Riesel	
184	Rockdale Water & Light Co	GD	Rockdale	Rockdale	Rockdale	
185	Rockport Ice & Light Co	GD	Rockport	Rockport	Rockport	
186	Rosebud Ice & Electric Light Co	GD	Rosebud	Rosebud	Rosebud	
187	Rotan Water & Light Co	GD	Rotan	Rotan	Rotan	
188	Rucker, C. L., Electric Light Plant	GD	Crowell	Crowell	Crowell	
189	Sabinal Water & Ice Co	GD	Sabinal	Sabinal	Sabinal	
190	San Augustine Light & Power Co	D	San Augustine	San Augustine	San Augustine	
191	San Benito Land & Water Co	GD	San Benito	San Benito	San Benito	
192	San Marcos Utilities Co	GD	San Marcos	San Marcos	San Marcos	San Marcos River
193	San Saba Light & Ice Co	GD	San Saba	San Saba	San Saba	
194	Schulenburg Light & Power Co	GD	Schulenburg	Schulenburg	Schulenburg	
195	Sealy Cotton Co	GD	Sealy	Sealy	Sealy	
196	Seymour Mill Electric & Light Co	GD	Seymour	Seymour	Seymour	
197	Smith, A. H., Electric Light Plant	GD	Martindale	Martindale	Martindale	San Marcos River
198	Smithville Electric Light, Water & Power Co	GD	Smithville	Smithville	Smithville	
199	Snyder Ice & Light Co	GD	Snyder	Snyder	Snyder	
200	Somerville Electric Light Co	D	Somerville	Somerville	Somerville	
201	Southern Utilities Co	GD	Lockhart	Lockhart	Lockhart	
	Southwestern Cities Electric Co	H				
202	Chillicothe Light & Power Co		Chillicothe and Quanah	Chillicothe		
203	Quanah Light & Ice Co	GD	do	Quanah	Quanah	
204	Spur Light & Power Co	GD	Spur	Spur	Spur	
205	Stamford Gas & Electric Co	GD	Stamford	Stamford	Stamford	
206	Standard Realty Co	D	Marble Falls	Marble Falls	Marble Falls	
207	Stephenville Light & Water Co	GD	Stephenville	Stephenville	Stephenville	
	Stone and Webster	M				
208	Arlington Light & Power Co	D	Arlington	Arlington	Arlington	
209	Beaumont Electric Light & Power Co	GD	Beaumont	Beaumont	Beaumont	
210	Dallas Electric Light & Power Co	GD	Dallas	Dallas	Dallas	
211	El Paso Electric Co	GTD	El Paso and Juarez, Mexico	El Paso	El Paso	
212	El Paso Electric Ry. Co	GTD	El Paso	do	do	
213	Galveston Electric Co	GTD	Galveston	Galveston	Galveston	
214	Galveston-Houston Electric Ry. Co	GD	League City	League City	League City	
215	Northern Texas Electric Co	GD	Dallas and Tarrant Counties.	Handley	Handley	
216	Port Arthur Light & Power Co	GD	Port Arthur	Port Arthur	Port Arthur	
217	Tarrant County Traction Co	D	Burleson	Burleson	Burleson	
218	Teague Electric Light & Power Co	GD	Teague	Teague	Teague	
219	Terrell Electric Light Co	GD	Terrell	Terrell	Terrell	
220	Texas City Electric Light & Water Co	GD	Texas City	Texas City	Texas City	
221	Texas Pacific Mercantile & Manufacturing Co	D	Thurber	Thurber	Thurber	
222	Texas Southern Electric Co	GD	Beeville	Beeville	Beeville	
223	Do	GD	Bishop	Bishop	Bishop	
224	Do	GD	Cuero	Cuero	Cuero	
225	Do	GD	Kingsville	Kingsville	Kingsville	
226	Do	GD	Victoria	Victoria	Victoria	
227	Timpson Light & Power Co	GD	Timpson	Timpson	Timpson	
228	Toyah Electric Light Co	GD	Toyah	Toyah	Toyah	
229	Trego, C. H., Ice & Electric Light Plant	GD	Palacios	Palacios	Palacios	
230	Trinity Power Co	D	Trinity	Trinity	Trinity	
231	Union Central Light & Ice Co	GD	Hubbard	Hubbard	Hubbard	
	United Gas & Electric Corporation	H				
232	Houston Lighting & Power Co	GD	Harris County	Houston	Houston	
233	Uvalde Electric Light Co	GD	Uvalde	Uvalde	Uvalde	
234	Venus Light & Water Co	GD	Venus	Venus	Venus	
235	Weimar Water, Light, Ice & Cold Storage Co	D	Weimar	Weimar	Weimar	
236	Western Light & Power Co	GD	Cisco and Sweetwater	Cisco	Cisco	
237	Do	GD	Rising Star	Rising Star	Rising Star	
238	Wharton Ice & Power Co	GD	Wharton	Wharton	Wharton	
239	Whitewright Electric Co	GD	Whitewright	Whitewright	Whitewright	
240	Wilcox Light & Power Co	D	Collin, Grayson, and Dallas Counties.			
241	Winsboro Cotton Oil Co	GD	Winsboro	Winsboro	Winsboro	
242	Wolfe City Light Co	GD	Wolfe City	Wolfe City	Wolfe City	
243	Wortham Light Co	GD	Wortham	Wortham	Wortham	
244	Winters Light & Milling Co	GD	Winters	Winters	Winters	
245	Yoakum Power, Light & Water Co	GD	Yoakum	Yoakum	Yoakum	
246	Yorktown Light & Ice Co	GD	Yorktown	Yorktown	Yorktown	
247	Yellow Pine Paper Mill Co	G	Orange	Orange	Orange	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

TEXAS—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
171			250			30				Mc.
172					60	30				Mc.
173			300	300		50	$0.20 –$0.10	$0.10 –$0.06		Mc. C.
174			30	25		45				Mc.
175	Private		(100)	100		35				C.
176	Do			120	425	375	.15 – .06	.06 – .04		Mc. C.
177	Do		(100)	100		60				Mc. C.
178	Do		230	225		150	.15 – .10	.10		Mc. C.
179			300	150		125				Mc. C.
180	Private		900	1,200		700	.144– .07	.08 – .03		Mc. C.
181			60	45		37½				Mc.
182	Private		195	50	60	75	.20 – .10			Mc. C.
183									Home Light & Power Co.	
184			170	150		75				Mc.
185	Private				50	35	.20			Mc. C.
186			350	340		150				Mc.
187	Private		100	75		50	.20 – .10	.10 – .05		Mc. C.
188	Do				90	50	.20			Mc. C.
189			75	80	100	50				Mc.
190										Mc.
191	Private				100	75	.175– .06	.045		Mc. C.
192		265	300	200		225	.15 – .10	.05 – .04		Mc. C.
193			160	150		130				Mc. C.
194	Private		225	175		150	.20	.08		C.
195			250	275		75				Mc.
196			410	190		75	.15 – .10	.10 – .07		Mc. C.
197	Private	120	200	100		38				Mc. C.
198	Do		300	450		275	.10 – .075	.10 – .05		Mc. C.
199			90	82	152	105				Mc.
200										Mc.
201	Private		300	175		85	.20 – .10			Mc. C.
202										M. Mc.
203			300	450		240				Mc.
204			80	65		30				Mc.
205			250	350		230				Mc.
206										Mc.
207			250	225	100	200				Mc.
208							.15 – .10	.05	Northern Texas Traction Co.	Mc. C.
209	Private		2,200	4,833	450	4,000	.15 – .06	.07 – .04		M. Mc. C.
210			9,390	29,723		18,300				M. Mc. C.
211			1,000	2,250		2,200				M. Mc.
212			5,270	8,219		5,800				Mc.
213			1,444	1,766		1,975				M. Mc.
214			1,560	4,000		3,000				M. Mc.
215	Private		5,320	14,922		10,800			Dallas Electric Light & Power Co.	M. Mc. C.
216			1,500	2,400		1,800				M. Mc. C.
217	Private						.135– .075	.045– .03	Northern Texas Traction Co.	Mc. C.
218			175	100	150	205				Mc.
219	Private		300	350		620	.15 – .07	.06 – .03		Mc. C.
220	Do		1,000	1,450		1,450	.12 – .08	.08 – .03		Mc. C.
221										Mc.
222			300	300		120				Mc.
223			123	128	24	110				Mc.
224		1,800	500	500		950				Mc.
225			200		100	475				Mc.
226			1,000	500		800				Mc.
227			80	80	40	97½				Mc.
228					40	25	.225– .16			Mc. C.
229	Private		225	60	60	90	.15 – .12			Mc. C.
230	Do						.15	.10	Thompson Bros. Lumber Co.	C.
231	Do		350	350		202	.15	.15		M. Mc. C.
232	Do		4,450	15,500		13,575	.09 – .05	.05 – .025		C.
233	Do		250	250		75				Mc. C.
234					45	27	.15			Mc. C.
235										Mc.
236			180	215		125				Mc.
237			100	75		25				Mc.
238			300	270	50	230				Mc.
239			100	150		120	.15			Mc. C.
240									Texas Traction Co.	Mc.
241	Private		240	318		160	.15 – .10	.10		Mc. C.
242	Do		(100)	125		60	.15 – .10	.06 – .045		Mc. C.
243			100	63		132				Mc.
244	Private				110	67½	.20			Mc. C.
245			400	800		350				Mc.
246			300	125	70	135				Mc.
247			(2,700)	3,000		2,700		.015		C.
	Total, A	6,552	114,618	190,105	13,347	157,450				

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY, UTAH.

A.—PUBLIC UTILITY PLANTS.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
1	Beaver River Power Co	GTD	Newhouse, Milford, and Sevier Valley.	Beaver River	S. 24, T. 29 S., R. 6 W.	Beaver River
2	Bennion, Hyrum, & Sons Co	GD	Taylorville and Bennion	Bennion's	Taylorville	Jordan River
3	Big Springs Electric Co	GD	Fountain Green and Moroni	Big Springs	S. 36, T. 13 S., R. 2 E.	Big Springs Creek
4	Bountiful Light & Power Co	D	Bountiful and vicinity	Bountiful		
5	Cedar Electric Co		Cedar City	Cedar City	S. 13, T. 36 S., R. 11 W.	Coal Creek
6	Clark Electric Power Co	GD	Tooele, Ophir, and Grantsville.	Tooele	S. 33, T. 3 S., R. 4 W.	Settlement Creek
7	Coalville Electric Light Co	D	Coalville			
8	Como Light & Power Co	GD	Morgan and vicinity	Morgan		
9	Electric Power & Milling Co	GD	Orangeville and Castledale	Orangeville		
0	Elgin Power & Light Co	D	Elgin			
11	Nunn, L. L			Gunnison	S. 3, T. 19 S., R. 2 E.	Six Mile Creek
12	Do	HGTD	Sevier Valley	Lower Fish Creek	S. 28, T. 26 S., R. 5 W.	Fish Creek
13	Do			Sevier	S. 32, T. 25 S., R. 4 W.	
14	Do			Upper Fish Creek	S. 8, T. 27 S., R. 5 W.	Fish Creek
15	Richfield Electric Light & Power Co	D	Richfield			
16	Perry Electric Light & Power Co	D	Perry			
17	Progress Co., The	GTD	Murray, Midvale, Jordan, and Winder.	Kundsen	S. 23, T. 2 S., R. 1 E.	Big Cottonwood
18	Do	GTD	Wilford and vicinity	State Street	S. 8, T. 2 S., R. 1 E.	do
19	Spring City Light & Milling Co	GD	Spring City	Spring City	S. 2, T. 16 S., R. 4 E.	Oak Creek
20	Swan Creek Electric Co	GD	St. Charles, Fishhaven, and vicinity.	Swan Creek	S. 6, T. 14 N., R. 5 E.	Swan Creek
21	United States Reclamation Service	GT	Spanish Fork, Salem, and Payson.	Spanish Fork	S. 35, T. 8 S., R. 3 E.	Spanish Fork
	Utah Securities Corporation	H				
22	Utah Light & Traction Co			Devils Gate	Weber Canyon	Weber River
23	Do			Jordan Street	Salt Lake City	
24	Do			Ogden	Ogden	Ogden River
25	Do			Granite	S. 25, T. 2 S., R. 1 E.	Big Cottonwood
26	Do			Stairs	S. 30, T. 2 S., R. 2 E.	do
27	Utah Power & Light Co			Alpine	S. 8, T. 4 S., R. 2 E.	Dry Creek
28	Do			Lower American Fork	S. 32, T. 4 S., R. 2 E.	American Fork
29	Do			Upper American Fork	S. 28, T. 4 S., R. 2 E.	do
30	Do			Battle Creek	S. 22, T. 5 S., R. 2 E.	Battle Creek
31	Do			Collinston	S. 23, T. 13 N., R. 2 W.	Bear River
32	Do	GTD	Northern Utah, southwestern Idaho.	Davis	S. 17, T. 3 N., R. 1 E.	Farmington Creek
33	Do			Farmington	Farmington	
34	Do			Jordan Narrows	S. 15, T. 4 S., R. 1 W.	Jordan River
35	Do			Logan	S. 36, T. 12 N., R. 1 E.	Logan River
36	Do			Murdock	S. 32, T. 2 S., R. 5 E.	Provo River
37	Do			Upper Mill Creek	S. 27, T. 1 S., R. 2 E.	Mill Creek
38	Do			Lower Mill Creek	S. 36, T. 1 S., R. 1 E.	do
39	Do			Olmstead	S. 7, T. 6 S., R. 3 E.	Provo River
40	Do			Park City	S. 24, T. 2 S., R. 4 E.	Ontario Tunnel
41	Do			Riverdale	S. 19, T. 5 N., R. 1 W.	Weber River
42	Do			Santaquin	S. 13, T. 10 S., R. 1 E.	Santaquin Creek
43	Do			Snake Creek	S. 21, T. 3 S., R. 4 E.	Snake Creek
44	(Lessor, Browning & Eccles Power Co.)	L		Hyrum	S. 11, T. 10 N., R. 1 E.	Blacksmith Fork
45	Do	L	do	Williard	S. 23, T. 8 N., R. 2 W.	Williard Creek
46	(Lessor, Utah Copper Co.)	L		Magna	Garfield	
47	Vernal Milling & Light Co	GD	Vernal	Vernal	S. 7, T. 3 S., R. 21 E.	Ashley Creek
48	Wasatch Mines Co	GD	Alta	Alta	S. 12, T. 2 S., R. 2 E.	Little Cottonwood Creek.

B.—MUNICIPAL PLANTS.

49		GD	Beaver	Beaver	S. 14, T. 29 S., R. 7 W.	Beaver River
50		GD	Brigham	Brigham	S. 20, T. 9 N., R. 1 W.	Box Elder Creek
51		GD	Ephraim	Ephraim	S. 13, T. 17 S., R. 3 E.	Cottonwood Creek
52		GD	Fairview	Fairview	S. 32, T. 13 S., R. 5 E.	Cottonwood
53		D	Farmington	Farmington		
54		GD	Heber, Midway, and Charleston.	Heber	S. 7, T. 3 S., R. 5 E.	Provo River
55		GD	Helper	Helper	T. 12 S., R. 9 E.	Price River
56		GD	Hyrum	Hyrum	S. 2, T. 10 N., R. 1 E.	Blacksmith Fork
57		D	Kaysville	Kaysville		
58		GD	Logan	Logan	S. 29, T. 12 N., R. 2 E.	Logan River
59		GD	Manti	Manti	S. 8, T. 18 S., R. 2 E.	Manti Creek
60		GD	Monroe	Monroe	S. 22, T. 25 S., R. 3 W.	Monroe Creek
61		GD	Mount Pleasant	Mount Pleasant	T. 15 S., R. 5 E.	Pleasant Creek
62		GD	Murray	Murray		Little Cottonwood
63		GD	Nephi	Nephi	S. 2, T. 13 S., R. 1 E.	Salt Creek
64		GD	Parowan and Paragoona	Parowan	S. 24, T. 34 S., R. 9 W.	Center Creek
65		GD	Price	Price		
66		D	Spanish Fork	Spanish Fork		
67		GD	Springville	Springville	S. 6, T. 8 S., R. 4 E.	Hobble Creek
68		GD	St. George	St. George	S. 30, T. 41 S., R. 15 W.	Cottonwood Creek
69		GD	State University	Utah State	S. 36, T. 12 N., R. 1 E.	Logan River
70		D	Wellsville	Wellsville		

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

UTAH.

A—PUBLIC UTILITY PLANTS.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
1	Forest	2,500				2,000		[a] $120.00		F. Mc. M.
2	Private	100				75	$0.10	$0.08– .02		Mc. C.
3	Do	260				200	.07	.07– .01		Mc. C.
4	Do						.125	.025	Utah Power & Light Co	Mc. C.
5	Do	125				90	.09	.05		C.
6	Do	250	210	150		250	.10	[1] 18.00– .025	Utah Power & Light Co	Mc. C.
7										Mc.
8		500				200				Mc. M.
9		125				50				Mc.
10										Mc.
11	Private	550				300			Beaver River Power Co	F.
12	Forest	(580)				355			do	F.
13	Private		300	(420)		250			do	F. C.
14	Forest	(420)				250			do	F.
15									do	F. Mc.
16										
17	Private	200				150	$0.10– .05	.08– .007	Brigham City Plant	Mc. C.
18	Do	200				75	.10– .05	.08– .007	Utah Power & Light Co	C. Mc.
19	Forest	22				30	.07		do	C. Mc.
20	Private	125				75				F.O. Mc.C.
21	Public	1,200				1,000	.03	.008		F.
22	Do	5,000				2,500			Utah Power & Light Co	C.
23	Private		7,200	16,000		12,000				C. Mc.
24	Do	10,600				6,500				C. Mc. F.
25	Forest	2,400				1,500				C. Mc. F.
26	Do	2,400				1,800				C. Mc. F.
27	Do	3,000				1,750			Utah Light & Traction Co	C. Mc. F.
28	Do	1,274				950				C. F. Mc.
29	Do	1,610				1,200				C. F. Mc.
30	Do	4,000				2,400				C. F. Mc.
31	Private	12,300				7,125				C. Mc.
32	Do	537				312				C. F. Mc.
33	Do		1,206	1,200		400				C. F. Mc.
34	Do	1,344				1,000				C. Mc.
35	Forest	3,000				2,000				C. F. Mc.
36	Private	3,300				2,500				C. Mc.
37	Forest	650				300				C. F. Mc.
38	Do	2,600				1,400				C. F. Mc.
39	Private	10,800				7,200				C. Mc.
40		300				125				C. Mc.
41	Private	5,750				3,750				C. Mc.
42	National Forest	1,700				880				C. F. Mc.
43	Private	2,000				1,180				C. Mc.
44	Public	4,300				2,500				C. F. Mc.
45	Do	700				350				C. Mc.
46	Private		8,380	11,394		8,500				C. Mc.
47	Public	350				250	.09			F. Mc.
48	Forest	800				600				C. F.
	Total, A	87,872	17,296	29,164		76,322				

B—MUNICIPAL PLANTS.

49	Private	200				90	$0.07			F. L. Mc. C.
50	Do	1,200				750	.05	$0.02		C. Mc.
51	Forest	300				150				F. Mc.
52	Private	126				75	.07	.07		F. Mc.
53									Utah Power & Light Co	Mc.
54	Private	1,280				600	.08	.05		Mc. F. L. C.
55	Do	250	250	250		150	$0.11– .09			F. L. C.
56	Do	174				100				F. L. C.
57									Utah Power & Light Co	Mc. C.
58	Forest	800				500				F. Mc.
59	Do	100				150	.07	[a] 12.00		F. Mc.
60	Private	100				80	.10– .04	$0.06– .04		F. C.
61	Government	275				185	.07	24.00		Mc. O. L. C.
62		1,200				800				Mc.
63	Private	250				150	.07	.07– .03		Mc. O. L. C.
64	Government	86				60	.07			O. L. C.
65			400	400		372	.10– .07	.035		Mc. C.
66									United States Reclamation Service	Mc.
67	Forest	150				100	.08			Mc. F. O. C.
68	Public	60				45	.10	.06– .04		Mc. F. O. C.
69	Private	600				400				F. L.
70									Utah Power & Light Co	Mc.
	Total, B	7,151	650	650		4,757				

[1] Horsepower-year.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

UTAH—Continued.

C.—ALL OTHER PLANTS.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
71	Consolidated Fuel Co	G	Mining	Hiawatha	S. 27, T. 15 S., R. 8 E.	
72	Michigan-Utah Mining Co	G	do	Alta	S. 11, T. 3 S., R. 2 E.	Little Cottonwood Creek.
73	Ophir Hill Consolidated Mining Co	G	do	Ophir	S. 28, T. 5 S., R. 4 W.	Ophir Creek.
74	Do	G	do	South Willow Creek	S. 27, T. 3 S., R. 6 W.	South Willow Creek.
75	Sevier-Miller Coalition Mining Co	G	do	Kimberly	S. 34, T. 25 S., R. 4½ W.	Clear Creek.
76	Skougaard, Charles	GD	Hotel lighting	Fish Lake	S. 17, T. 26 S., R. 1 E.	Twin Creek.

VERMONT.

A.—PUBLIC UTILITY PLANTS.

1	Allen, William F., Co	GD	Canaan	Canaan	Canaan	
	American Gas Co	H				
2	Burlington Light & Power Co	GD	Chittenden County	Colchester	Colchester	Winooski River.
3	Do			Essex Junction	Essex Junction	do.
	American Pipe & Construction Co	H				
4	Vermont Power & Manufacturing Co	GD	St. Albans and Fairfax	Fairfax Falls	Fairfax	Lamoille River.
5	Barnet Electric Light & Power Plant	GD	Caledonia County, Vt., and Monroe, N. H.	Barnet	Barnet	Stevens River.
	Barstow, W. S., & Co	M				
6	Claremont Power Co	GD	Claremont	Claremont	Claremont	
7	Colonial Power & Light Co	GTD	Windsor County	Cavendish		Black River.
8	Do	GTD		Manchester		Battenkill River.
9	Rutland Railway, Light & Power Co	GTD	Bennington and Rutland Counties.	Mendon		East Creek.
10	Do			Pittsford	Near East Pittsford	do.
11	Do			Rutland		
12	Do			West Rutland		
13	Western Vermont Power & Light Co	GD	Rutland County, Vt., and Hampton, N. Y.	Carvers Falls	Near Fairhaven	Poultney River.
14	Benson, W. E	GD	Weston	Weston	Weston	Wantastiquet River.
15	Bradford Electric Lighting Co	GD	Orange County, Vt., and Grafton County, N. H.	Bradford	Bradford	Waits River.
16	Bridgewater Electric Co			Woodstock		
17	Burlington Flouring Co	GD		Burlington		
18	Burlington Traction Co	T		do		
19	Cavendish Electric Light Co	D	Cavendish	Cavendish		
20	Chester Water & Light Co	D	Chester	Chester		
21	Domina Manufacturing Co	GD	Franklin County	Enosburg Falls		
22	Electric Light & Milling Co	D	Orleans	Orleans		
23	Glover Electric Light Plant	D	Glover	Glover		
24	Groton Electric Co	GD	Groton	Groton, No. 1		
25	Do	GD	do	Groton, No. 2		
26	Groveton Electric Light Co	D	Groveton	Groveton		
27	Hortonia Power Co	GD	Windsor and Orange Counties.	Bethel	Bethel	White River.
28	Island Pond Electric Co	GD	Orleans and Essex Counties.	Island Pond	Island Pond	
29	Do	GD	do	West Charleston	West Charleston	
30	Jones & Lamson Power Co		Perkinsville	Perkinsville	Perkinsville	Black River.
31	Lake Dunmore Power & Traction Co	GD	Bristol	Bristol		New Haven River.
32	Lunenburg Manufacturing Co	D		Lunenburg		
33	Lyman Falls Power Co	GD	Groveton	Bloomfield		
34	McIndoe Falls Electric Light Plant			McIndoe Falls		
	Massachusetts Lighting Cos	H				
35	Stamford Light, Heat & Power Co	D	Stamford	Stamford		
36	Middlebury Electric Co	GD	Middlebury	Middlebury		
	Middle West Utilities Co	H				
37	Twin State Gas & Electric Co	GD	Bennington County	Bennington	Bennington	Roaring Branch, Walloomsac River.
38	Do	GD	Essex and Caledonia Counties.	St. Johnsbury		
39	Do	GD	Windham County	West Dummerston	Brattleboro	West River.
40	Neshobe Electric Co	GD	Brandon	Brandon	Brandon	
	New England Power Co. of Maine	H				
41	Bellows Falls Electric Co	GTD	Fall Mountain Electric Co	Bellows Falls	Bellows Falls	Connecticut River.
42	Connecticut River Power Co	GD	Southeastern Vermont, southwestern New Hampshire, northern Rhode Island, and Massachusetts.	Vernon	Vernon	do.
43	Fall Mountain Electric Co	GD	Windham County	Bellows Falls	Westminster	Saxton River.
44	Do	GD	do	do	Bellows Falls	
	New England Securities Co	H				
45	Royalton Power Co	GD	Windsor and Orange Counties.	South Royalton	South Royalton	
46	Newport Electric Light Co	GD	Orleans County	Derby	Derby	Clyde River.
47	North Troy Electric Light & Power Co	GD	North Troy	North Troy		
48	Reading Light & Power Co	D		Felchville		

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

UTAH—Continued.

C—ALL OTHER PLANTS.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
71	Private		1,200	1,500		1,050				C.
72	Forest	400				(1)				F.
73	Private	500				300			Utah Power & Light Co	C. F.
74	Forest	500				400			do	C. F.
75	Private	300	300	300		200				C. F.
76	Forest	(11)				6½				C. F.
	Total, C	1,711	1,500	1,800		1,956				
	Grand total	96,734	19,446	31,614		83,035				

VERMONT.

A.—PUBLIC UTILITY PLANTS.

1		398				220				P.
2	Private	3,000	750	1,330		1,500	$0.10–$0.03	$0.05 –$0.0175		Mc. C.
3	Do	10,000				6,000				Mc. M. C.
4	Private	2,250	575	530		1,050	.12– .06	.07 – .015		Mc. M. Mc.M.P.C.
5	Do	220			30	236	.05	.03 – .02		Mc. P. C.
6		600		1,000	900	(1,690)				Mc. M. Mc.
7		2,200				1,500	.11– .08	.07 – .015	Fall Mountain Power Co	Mc. M. P. O. C.
8		65	100	225		305	.15		Rutland Railway, Light & Power Co.	Mc. P. C.
9	Private	2,310				1,600	.12– .06	.08 – .022	Pittsford Power Co	Mc. M. P. O. C.
10	Do	2,500				2,000				C.
11			2,000	2,500		1,500				P.
12										
13	Private	1,300				1,300	.12– .06	.08 – .022	Rutland Railway, Light & Power Co.	Mc.M.P.C.
14										P.
15	Private	360	152	225		390	.20– .03	.05 – .02		Mc. P.
16										P.
17									Burlington Flouring Co	Mc.
18										Mc. M.
19									Colonial Power & Light Co	Mc. P.
20									do	Mc. P.
21		200				200				Mc.
22									City of Barton	Mc.
23									do	Mc.
24		420				75				Mc. P.
25						200				P.
26									Lyman Falls Power Co	P.
27	Private	400				300	.10	.015		Mc.M.P.C.
28			(100)	150		(90)				P.
29		600				400	.10			Mc. M. P.
30	Private	400				300			Colonial Power & Light Co	P. C.
31		225	150	150		250	.10– .05	.07 – .02		Mc. P.
32										Mc. P.
33		1,336				1,000				Mc.
34										Mc.
35									North Adams Gas Light Co	M. Mc. C.
36		200	175	175		130	.10– .06	.10 – .04		Mc. P.
37	Private	288	700	1,000		680	.11– .07	.06 – .02		Mc.M.P.C.
38		1,400	302	670		850				Mc.
39	Private	300	500	350		300	.10– .06	.08 – .02	Connecticut River Power Co	Mc. P. C.
40		335	150	150		300	.15– .06			Mc. P.
41	Private	800				800	.01	.01		M. C.
42	Do	30,000				20,000		.025– .007	Berkshire Street Ry., Worcester Electric Co., Blackstone Valley Gas & Electric Co., Ware Electric Lighting Co.	C.
43	Do	500				400	.13– .06	.03 – .02	Connecticut River Power Co	Mc.M.P.C.
44	Do		750	700		700	.13– .06	.03 – .02	do	Mc.M.P.C.
45		90	150	125		(80)	.10			Mc. M. Mc. M. P.
46	Private	1,600	300	300		1,230	.10– .05	.05 – .02		Mc. P. C.
47		200			50	(150)	.10– .08			Mc.
48									Claremont Power Co	P.

[1] Water plant.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

VERMONT—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
49	Readsboro Chair Manufacturing Co.	GD		Readsboro		
50	Readsboro Electric Light Co.	D	Readsboro	do		
51	Richmond Electric Light & Power Co.	D	Richmond	Richmond		
52	Robinson & Kingsbury Electric Light Co.	GD		South Londonderry		
53	Rochester Electric Light & Power Co.	GD	Rochester	Rochester		
54	Ryegate Light & Power Co.	GD	Ryegate and Boltonville	Boltonville	Newbury	Wells River
55	Smith, W. J.	GD	Sheffield	Sheffield		
56	Sweat-Comings Co.	GD	Chittenden and Caledonia Counties.	Richford	Richford	Missisquoi River
	Tenney, C. H., & Co.	M				
	(Lessor, Montpelier & Barre Light & Power Co).	L				
57	Consolidated Lighting Co.	GTD	Washington and Orange Counties.	Bolton Falls, No. 1	Duxbury	Winooski River
58	Do.			Corry-Deavitt, No. 4	Montpelier	do
59	Do.			Corry-Deavitt, No. 5	East Montpelier	do
60	Do.			Middlesex, No. 2	Moretown	do
	(Lessor, Waterbury Light & Power Co.)	L				
61	Consolidated Lighting Co.	GTD	do	Moody and Almon, No. 7.	do	Mad River
62	Do.	GTD	do	Moody and Almon, No. 8.	do	do
63	Do.	GD		Steam plant		
64	Thompson, Shaw & Co.	GD	Weybridge	Weybridge		Otter Creek
65	Vergennes Electric Co.	D	Vergennes	Vergennes		
66	Vermont Marble Co.	GTD	Proctor and West Rutland.	Beldens	Beldens	Otter Creek
67	Do.			Center Rutland	Center Rutland	do
68	Do.			Florence	Florence	
69	Do.			Huntington Falls	Weybridge	Otter Creek
70	Do.			Proctor	Proctor	do
71	Do.			West Rutland	West Rutland	
72	Vermont Soapstone Co.	GD	Perkinsville	Perkinsville		
73	White River Electric Co.	D	Randolph	Randolph		
74	Wilmington Electric Light Co.	GD	Wilmington	Wilmington	Wilmington	
75	Windsor Electric Light Co.	GD	Windsor and Washington Counties.	Windsor, No. 1	Windsor	
	Woodbury Granite Co.	H				
76	Gaysville Electric Light & Power Co.	GD	Windsor and Orange counties.	Gaysville	Gaysville	White River
77	Do.		Hardwick	Hardwick	Hardwick	
78	Do.			do	do	
79	Woodstock Electric Co.	GD	Windsor County	Woodstock		Ottauquechee River

B.—MUNICIPAL PLANTS.

80		GD	Orleans County	Barton	West Charleston	Clyde River
81		GD	Burlington	Burlington	Burlington	
82		GD	Enosburg Falls	Enosburg Falls	Enosburg Falls	Missisquoi River
83		GD	Hardwick and Wolcott	Hardwick		
84		GD	Hyde Park and vicinity	Hyde Park	Hyde Park	Gihon River
85		GD	Johnson	Johnson	Johnson	do
86		GD	Windsor County	Ludlow	Ludlow	
87		GD	Caledonia County	Lyndonville, No. 1	Lyndon	Passumpsic River
88		GD	Lamoille County	Morrisville	Cady's Falls	Lamoille River
89		D	Northfield	Northfield		
90		D	Orleans	Orleans		
91		GD	Swanton and Highgate	Swanton	Highgate	
92		GD	Wells River	Wells River	Wells River	Wells River

C.—ALL OTHER PLANTS.

93	American Woolen Co.			Winooski		Winooski River
94	Dalton Paper Mills			Fitzdale		Connecticut River
95	Green Mountain Pulp Co.			Middlebury		Otter Creek
96	International Paper Co.		Manufacturing	Fall Mountain	Bellows Falls	Connecticut River
97	Do.		do	Milton	Milton	Lamoille River
98	Do.		do	Wilder	Wilder	Connecticut River
99	Missisquoi Pulp Co.			Sheldon Springs	Sheldon	Missisquoi River
100	Mount Mansfield Electric R. R. Co.		Electric railway	Stowe	Stowe	
101	Slaton, H. A.		Milling	Morrisville	Morrisville	Lamoille River
102	Springfield Electric Ry. Co.		Electric railway	Goulds Mills	Goulds Mills	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

VERMONT—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
49										Mc.
50									Readsboro Chair Manufacturing Co.	Mc.
51									Burlington Light & Power Co.	Mc.
52										Mc.
53			80	86		(70)	$0.12 -$0.05			P. Mc.
54	Private	350				240	.10	$0.023		Mc. P. C.
55					9	3				Mc.
56	Private	492	375	375		400	.10 .075	$0.05 - .017		Mc.M.P.C.
										Mc. M.
57	Private	3,800				2,100	.10 - .05	.04 .02	Burlington Light & Power Co.	Mc.M.P.C.
58	Do	900	408	670		1,100	.10 .05	.04 - .02	do	Mc. P. C.
59	Do	900				637	.10 .05	.04 - .02	do	Mc. O. C.
60	Do	2,114	612	1,000		1,850	.10 .05	.04 - .02	do	Mc. C.
61	Do	450				300	.10 - .05	.04 - .02	do	Mc. C.
62	Do	800				500	.10 - .05	.04 - .02	do	M. C.
63			(4,000)	(6,700)		4,000				C.
64	Private	85				(50)				Mc. C.
65							.12 - .06		Burlington Traction Co	P. Mc.
66		2,400				2,000				Mc. P. C.
67		300				275				Mc. O. C.
68			900	1,000		800				C.
69		2,400				2,000				C.
70		3,600				3,000	.14 - .05	.06 - .0035	Rutland Railway, Light & Power Co.	Mc. O. C.
71			625	700		700				C.
72		100				50				Mc. P.
73									Gaysville Electric Light & Power Co.	Mc. P.
74			90	105		30				Mc. P.
75		275	275	425		440	.15 - .085	.075		Mc. P.
76		500				300	.10	.015		P. C.
77	Private	750				500		.0133	Hardwick	Mc. P. C.
78	Do		1,500	1,330		1,000		.0133		C.
79		250	200	200		150	.15 - .05			Mc. M. P.
	Total, A	84,963	15,919	22,171	989	70,981				

B.—MUNICIPAL PLANTS.

80	Private	950				700	$0.08 -$0.012	$0.035-$0.017		Mc. P. C.
81			900	1,740		1,350				Mc. P.
82	Private	185				75	.10			Mc. P. C.
83		1,000				600	.06			Mc.
84	Private	200				150	.08	.013		Mc. P. C.
85		250				150				Mc. P. C.
86		175	100	90		290	.11	.05		Mc. P.
87		900				432	.08	.06 - .014		Mc. P.
88		700				250	.06	.01		Mc. P.
89									Consolidated Lighting Co	Mc.
90									Barton Electric Light Co	C.
91		400				300				Mc.
92	Private	150				50	.085- .02	.06 - .02		Mc. C.
	Total, B	4,910	1,000	1,830		4,347				

C.—ALL OTHER PLANTS.

93		2,844								M. O.
94		2,103								O.
95		1,700							Fall Mountain Electric Co	O.
96	Private	7,700	3,500	1,200		320				M. O. C.
97	Do	3,000	400	25		75				O. C.
98	Do	5,900	1,300	700		1,295				O. C.
99		4,400	450	200		150				O. C.
100			300	400		100				Mc.
101	Private	369								C.
102			375	450		400				Mc.
	Total, C	28,016	6,325	2,975		2,340				
	Grand total	117,889	23,244	26,976	989	77,668				

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

VIRGINIA.

A.—PUBLIC UTILITY PLANTS.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
1	Abingdon Water & Light Co	GD	Abingdon	Abingdon	Abingdon	
	American Railways Co	H				
2	Lynchburg Traction & Light Co	GTD	Lynchburg	Lynchburg	Lynchburg	
3	Do	GTD	do	do	Near Lynchburg	James River
4	Roanoke Railway & Electric Co	GTD	Roanoke	Roanoke	Roanoke	
5	Do	GTD	Salem and Vinton	do	Roanoke County	Roanoke River
6	Braddock Light & Power Co	D	Rosslyn and Fort Myer			
	Byllesby, H. M. & Co	M				
7	Appalachian Power Co	GTD	Western Virginia and southeastern West Virginia	New River, No. 2		New River
8	Do			New River, No. 4		do
9	Do			Roanoke		
10	Charlottesville & Albemarle Ry. Co	GTD	Charlottesville	Charlottesville		
11	Chatham Light & Power Co	GD	Chatham	Chatham	Chatham	
12	Coeburn Light & Power Co	GD	Wise County	Coeburn	Coeburn	
13	Cornett Light & Power Co	GD	Rural Retreat	Rural Retreat	Rural Retreat	
14	Crewe Light & Power Co	GD	Crewe	Crewe	Crewe	
15	Culpeper Light & Ice Co	GD	Culpeper	Culpeper	Culpeper	
16	Damascus Light & Power Co	GD	Damascus	Damascus		
17	Dillwyn Light, Ice & Preserving Co	D	Dillwyn	Dillwyn		
18	Emporia Hydro Electric Power Co	GD	Emporia	Emporia	Emporia	Meherrin River
19	Grundy Light & Power Co	GD	Grundy	Grundy	Grundy	
20	Houston Electric Light Co	GD	Houston	Houston		
21	Ice, Water & Light Co	GD	Blackstone	Blackstone	Blackstone	
22	Independence Electric & Milling Co	GD	Independence	Independence		Perch Bottom Creek
23	Leesburg Electric Co	GD	Leesburg	Leesburg		
24	Light & Power Co	GD	Rocky Mount	Rocky Mount	Rocky Mount	Pig River
25	Loudoun Light & Power Co	GD	Purcellville, Hamilton, and Round Hill.	Purcellville	Purcellville	
26	Manor, J. D., & Co	GD	New Market	New Market		
	Middle West Utilities Co	H				
27	Powell Valley Light & Power Co	GD	Big Stone Gap and Appalachia.	Big Stone Gap	Big Stone Gap	
28	Monterey Garage & Light Co	GD	Monterey	Monterey	Monterey	
	Municipal Service Co	H				
29	Alexandria County Lighting Co	GD	Alexandria and Potomac	Alexandria	Alexandria	
30	Arlington Electric Co	D	Clarendon, Ballston, and Falls Church.	Clarendon (Alexandria).		
31	Riverside Light & Power Co	D	Waynesboro	Waynesboro	Waynesboro	
32	Staunton Lighting Co	GD	Staunton and Fisherville	Staunton	Staunton	
33	Narrows Electric Light & Power Co	D	Narrows	Narrows		
34	Natural Bridge Co	GD	Natural Bridge	Natural Bridge		
35	Newport News & Hampton Railway, Gas & Electric Co.	GTD	Hampton and Phoebus	Hampton	Hampton	
36	Do	GTD	Newport News and Old Point.	Newport News	Newport News	
37	Norfolk Southern Railroad Co	GD	Norfolk	Norfolk		
38	North River Electric Co	GD	Bridgewater and Dayton	Bridgewater	Bridgewater	
	Norton Light & Power Co	H				
39	New York Mining & Manufacturing Co	GD	Norton and Wise	Norton	Norton	
40	Onancock Manufacturing Co	GD	Onancock	Onancock	Onancock	
41	Peoples' Light, Heat & Power Corporation	GD	West Point	West Point	West Point	
42	Radford Water Power Co	GD	Radford, New River, and East Radford.	Radford	Radford	
43	Rappahannock Electric Light & Power Co	GD	Fredericksburg and Falmouth.	Fredericksburg	Fredericksburg	Rappahannock River
44	Rock Springs Electric Co	GD	Strasburg and Fishers Hill	Fishers Hill		
45	St. Paul's Normal and Industrial School	GD	Lawrenceville	Lawrenceville	Lawrenceville	
46	Shenandoah River Light & Power Corporation	GD	Luray	Luray	Luray	Shenandoah River
47	South Boston Electric Light & Power Co	GD	South Boston	South Boston		Dan River
48	South Hill Manufacturing Co. (Inc.)	GD	South Hill	South Hill	South Hill	
	Spottsylvania Power Co	GD				
49	(Lessor, City of Fredericksburg)	L	Fredericksburg	Fredericksburg		Rappahannock River
	Standard Red Cedar Chest Co	H				
50	Altavista Light & Power Corporation	GD	Altavista	Altavista	Altavista	
51	Stanley Milling Co	GD	Stanleyton	Stanleyton	Stanleyton	
	Tazewell Street Railway Co	H				
52	Tazewell Electric Light & Power Co	GD	Tazewell and North Tazewell.	Tazewell	Tazewell	
53	Valley Light & Power Co	GD	Northern Virginia	Woodstock		North Fork Shenandoah River.
54	Virginia Polytechnic Institute	GD	Blacksburg	Blacksburg	Blacksburg	
55	Virginia Railway & Power Co	GTD	Norfolk, Portsmouth, and Berkeley.	Norfolk	Norfolk	
56	Do	GTD	Richmond and Petersburg	Petersburg		Appomattox River
57	Do	GTD	Centralia and Chester	Richmond		James River
58	Do	GD	Suffolk	Suffolk	Suffolk	
59	Virginia Western Power Co	HGD	West central Virginia and southeastern West Virginia.	Buena Vista	Buena Vista	North River
60	Do	GD		Clifton Forge	Clifton Forge	
61	Do	GD		Covington	Covington	
62	Do	GD		Lexington	Lexington	North River
63	Blue Ridge Power Co	GD		Balcony Falls	Balcony Falls	James River
64	Warrenton Electric Light & Ice Co	GD	Warrenton and suburbs	Warrenton	Warrenton	
65	Water, Electric Light & Power Co	GD	Richlands	Richlands	Richlands	
66	Weyers Cave Light & Power Co	GD	Weyers Cave	Weyers Cave		North Fork Shenandoah River.
67	Woodstock Electric Light & Power Co	GD	Woodstock	Woodstock		

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

VIRGINIA.

A.—PUBLIC UTILITY PLANTS.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
1	Private		400	175		150	$0.10			C. Mc.
2	Do		1,400	3,500		2,500	$0.08- .03	$0.03 -$0.015		C.
3		4,300				2,500	.08- .03	.03 - .015		C.M.Mc.O.
4	Private		2,048	6,000		4,500	.08- .03	.03 - .015	Appalachian Power Co.	C. M. Mc.
5	Do	3,350				2,600	.08- .03	.03 - .015	do	C.M.Mc.O.
6									Potomac Electric Power Co	Mc. O.
7	Private	20,000				14,400	.10- .02	.03 - .0055		C. M. O.
8	Do	9,000				6,900	.10- .02	.03 .0055		C. M. O.
9			(6,000)	7,500		5,250				M. O.
10			2,000	2,300		2,250	.12- .05	.08 .02		C. M. Mc.
11					100	100				Mc.
12			100	100		75				Mc.
13			70	60		(50)				Mc.
14			150	150		90				Mc.
15			150	150		65				Mc.
16		230				85				Mc.
17										Mc.
18	Private	1,500				1,020	.10- .07	.06 - .013		C.M.Mc.O.
19	Do		200	150		75		.12 - .06		C. Mc.
20		130				71				Mc.
21	Private		250	200		125	.15- .10			C. Mc.
22	Do	125				75				C. Mc.
23		200	200	200		200				Mc.
24	Private	150	150	150		175				C. Mc.
25	Do		160	133		80	.12- .06	.12 - .06		C. Mc.
26		90			125	50				Mc.
										Mc.
27	Private		150	300		200	.17- .12	.10 - .03		C. Mc.
28	Do				15	10	.15			C. Mc.
29			750	1,555		1,150	.10			M. Mc.
30									Alexandria County Lighting Co.	M. Mc.
31	Private						.10- .08	.08 - .03	Staunton Lighting Co	C. M. Mc.
32			1,150	2,000		1,650				M. Mc.
33										Mc.
34		125				75				Mc.
35			2,870	7,730		5,800				M. Mc.
36			600	550		250				Mc.
37			1,400	3,000		2,000				Mc.
38		350				120	.10			C. Mc.
39			200	225		175				Mc.
40			75	70		45				Mc.
41	Private				70	60	.15	.10 - .02		C. Mc.
42		600	200	200		620				M. Mc.
43		525	400	320		420	.10- .04	.04 - .02		C. Mc.
44		75				50				Mc.
45			80	75		40				Mc.
46	Private	750				400	.10	[1]30.00		C. Mc.
47	Do	700	600	400		700	.10	.10 - .02		C. Mc.
48	Do		300	100		50	.10			C. Mc.
49		4,500				2,100				Mc. O.
50			200	156		100				Mc.
51			75	60		12½				Mc.
52	Private		450	350		440	.15- .05	.05 - .02		C. Mc.
53	Do	400				250	.08	.044- .025		C. Mc.
54			400	700		460	.08- .05	.04		C. Mc.
55			7,168	22,670		17,000	.10- .02	.09 - .01		C. M. Mc.
56	Private	3,000				1,900	.10- .02	.09 - .01		C. Mc.
57	Do	16,000	10,800	23,000		26,850	.10- .02	.09 - .01		C. M. O.
58	Do		550	750		675	.10- .02	.09 - .01		C. Mc.
59	Private	550	150	150		300	.10- .07	.05 - .015		C. M. Mc.
60			1,600	2,000		1,500	.10- .04	.05 - .015		C.
61			250	375		120				M. Mc.
62		200				150	.10- .07	.05 - .015		C. M. Mc.
63	Forest	3,000				2,400				C.
64	Private		300	295		190	.10	.10 - .06		C. Mc.
65			250	100		60				Mc.
66		75				40	.10			C. Mc.
67		350				275				Mc.
	Total, A	70,275	44,246	87,899	310	112,023				

[1] Horsepower-year.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY

VIRGINIA—Continued.

B.—MUNICIPAL PLANTS.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
68		GD	Basic City	Basic City		
69		GD	Bedford	Bedford City	Near Big Island	James River
70		GD	Chase City	Chase City	Chase City	
71		GD	Danville	Danville	Danville	
72		GD	Farmville	Farmville	Farmville	
73		GD	Franklin	Franklin	Franklin	
74		GD	Front Royal and Riverton	Front Royal	Riverton	North Branch Shenandoah River.
75		GD	Gordonsville	Gordonsville	Gordonsville	
76		GD	Harrisonburg	Harrisonburg		Shenandoah River
77		GD	Manassas	Manassas	Manassas	
78		GD	Martinsville	Martinsville	Martinsville	Smiths River
79		GD	Richmond	Richmond	Richmond	James River
80		D	Salem	Salem		
81		GD	Shenandoah	Shenandoah	Shenandoah	
82		GD	Staunton	Staunton	Staunton	

C.—ALL OTHER PLANTS.

83	Bedford Pulp & Paper Co			Richmond		
84	Danville Traction & Power Co	G	Electric railways	Danville	Danville	
85	Ohio C. Barber Fertilizer Co	G	Manufacturing	Falling Springs	Barber	Falling Springs
86	Riverside & Dan River Cotton Mills	G	do	Dan River	Schoolfield	Dan River
87	Do		do	Riverside	Danville	Dan River
88	Virginia Soapstone Co		Mining and manufacturing	Schuyler	Schuyler	Rockfish River
	Warren-Burnham Co., The	H				
89	Virginia Portland Cement Co	G	Manufacturing	Fordwick	Fordwick	
90	Washington & Old Dominion R. R. Co	G	Electric railways	Rosslyn	Rosslyn	

WASHINGTON.

A.—PUBLIC UTILITY PLANTS.

	American Power & Light Co	H				
1	Pacific Power & Light Co	GTD	Southern Washington and northern Oregon	Goldendale	Goldendale	
2	Do			Husum	Husum	White Salmon River
3	Do			Kennewick	Kennewick	
4	Do			Naches, No. 1	S. 13, T. 14 N., R. 17 E.	Naches River
5	Do			Naches, No. 2	S. 3, T. 14 N., R. 17 E.	do
6	Do			North Yakima (Fruitvale).	S. 23, T. 13 N., R. 18 E.	do
7	Do			Pomeroy	Pomeroy	
8	Do			Prosser	S. 2, T. 8 N., R. 24 E.	Yakima River
9	Do			Tucannon	S. 18, T. 11 N., R. 41 E.	Tucannon River
10	Do			Waitsburg	Waitsburg	Touchet River
11	Do			Walla Walla	S. 20, T. 7 N., R. 36 E.	
12	Anacortes Light & Water Co	GD	Anacortes	Anacortes	Anacortes	
13	Black Rock Power & Irrigation Co	GD	Hanford and Irrigation	Priest Rapids	S. 2, T. 13 N., R. 23 E.	Columbia River
	Bolcom Vanderhoff Logging Co	H				
14	Sumas Electric Light Co	GD	Sumas and vicinity	Sumas		
15	Bremerton Charlestown Light & Fuel Co			Bremerton		
	Byllesby, H. M., & Co	M				
16	Everett Gas Co	D	Snohomish and Monroe			
	Central Light & Manufacturing Co	GD				
17	(Lessor, R. P. Buser)	L	Pe Ell	Pe Ell	Pe Ell	Chehalis River
18	Chelan Electric Co	GD	Chelan and Lakeside	Chelan	Chelan	
19	Cheney Electric Light Plant	GD	Cheney	Cheney	Cheney	
20	Clear Lake Lumber Co	GD	Clear Lake	Clear Lake	Clear Lake	
21	Duvall Light & Water Co	GD	Duvall	Duvall	Duvall	
22	Edmonds Electric Light & Power Co	D	Richmond Beach and Edmonds.			
23	Elma Light & Power Co	GD	Elma	Elma	Near Elma	
24	Enloe, Eugene	D	Medical Lake, Rosalia and vicinity.			
	Federal Light & Traction Co	H				
25	Grays Harbor Railway & Light Co	GTD	Aberdeen, Hoquiam and Cosmopolis.	Aberdeen	Aberdeen	
26	Granite Falls Electric Co	GD	Granite Falls	Granite Falls	S. 19, T. 30 N., R. 7 E.	Pilchuck
27	Great Northern Railroad Co	GT	Tumwater Light & Power Co.	Lower	Leavenworth	
28	Hunters Electric Light Co	GD	Hunters	Hunters	Hunters	Hunters Creek
29	Independent Electric Co	D	Castlerock, Winlock, and vicinity.			
30	Inland Portland Cement Co	GD	Metaline Falls and Cement Plant.	Sullivan Creek	S. 22 and 27, T. 39 N., R. 43 E.	Sullivan Creek
31	Ione Water & Power Co	D	Ione			
32	Jim Creek Water, Light & Power Co	GD	Arlington and vicinity	Jim Creek	S. 2, T. 31 N., R. 5 E.	Jim Creek

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

VIRGINIA—Continued.

B.—MUNICIPAL PLANTS.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
68		190				150				M.
69	Private	500				400	$0.08 -$0.05	$0.08- $0.025		C. Mc.
70			125	100		(90)				Mc.
71	Private		1,400	2,400		1,800	.072- .054	.03- .01		C. Mc.
72			600	300		200				Mc.
73			275	150		105				Mc.
74	Private	184				150	.075- .03	.03- .01		C. Mc.
75	Do		100	(60)		37½				C.
76		1,850				850				Mc.
77			250	200		150				C. Mc.
78		1,000				800	.05	[1]50.00-[1]18.00		C. Mc.
79	Private	2,400	1,000	2,670		2,700				C. Mc. O.
80									Roanoke Railway & Electric Co.	Mc.
81			160	138		70				Mc.
82			150	260		200				C. Mc.
	Total, B	6,124	4,060	6,278		7,703				

C.—ALL OTHER PLANTS.

83		3,400								O.
84	Private		450	800		724				C. Mc.
85	Do	760				550				C.
86	Do	9,270	12,500	9,000		16,350				C. M.
87	Do	4,000	2,500	2,500		1,650				C. M. O.
88	Do	400	150							C. M.
89	Private		2,820	4,000		1,900				C. M.
90			1,500	3,330		1,250				M. Mc.
	Total, C	17,830	19,920	19,630		22,424				
	Grand total	94,229	68,226	113,807	310	142,150				

WASHINGTON.

A.—PUBLIC UTILITY PLANTS.

1		250				150	$0.13 -$0.065	[1]$72.00		Mc. C.
2	Private	100				75				Mc. O.
3	do		450	666		500				Mc. O. C.
4		10,100	2,050	3,680		9,500				O. C.
5		1,900				1,400				O. C.
6	Private	500				350				O. C.
7	Do		150	125		100				O. C.
8	Do	668				600				Mc. O. C.
9	Do	200				150				Mc. O. C.
10		170		125		150				O. C.
11	Private		1,000	1,340		1,000				Mc. O. C.
12			360	930		700	.12 - .07			Mc. O. M. C.
13		2,000				1,800	.12		Pacific Power & Light Co	C.
14	Private		(90)	(125)		75	.10 - .04	$0.038- .0125	Western Canada Power Co	Mc. C.
15										O.
16									Puget Sound Traction, Light & Power Co.	Mc. C.
17	Private	125	35	60		200	.125	.08		Mc. O. P. C.
18		200				75				Mc. O. P.
19			60	50		30			Washington Water Power Co	Mc.
20	Private		(100)	110		90				Mc. C.
21				65		35				Mc. P.
22	Private						.12 - .04	.05	Pacific Northwest Traction Co.	Mc. P. C.
23		250	100	84		250				Mc. O.
24							.15 - .10	.07 - .02	Washington Water Power Co	Mc. C.
25	Private		1,200	3,500		2,650	.10 - .04	.07 - .005	Anderson & Middleton Lumber Co.	Mc. O. M. P. C.
26		100			80	60	.125- .045	.06 - .03		Mc. O. P. C.
27		(330)				200				C.
28		17				25				Mc. O.
29									Washington-Oregon Corporation.	Mc. P. C.
30	Forest	4,000				3,530	.05	.05		C.
31	Private						.15		Inland Portland Cement Co	P. C.
32	Do	350	100	81		275	.125- .03	.10 - .02		Mc. O. P. C.

[1] Horsepower-year.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

WASHINGTON—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
33	Key City Light & Power Co	GD	Port Townsend	Port Townsend	Port Townsend	
	Kneeland Iron Co	H				
34	Shelton Electric Co	GD	Shelton	Shelton	Shelton	
35	Kulzer Electric Co	GD	Valley, Springdale, and Gray	Valley	S. 26, T. 31 N., R. 41 E.	
36	La Conner Electric Light Plant	GD	La Conner	La Conner	La Conner	
37	Lewis County Light & Telephone Co	GD	Morton	Morton	Morton	Tilton River
38	Lewiston-Clarkston Improvement Co	GD	Lewiston, Ida, and vicinity	Asotin	S. 21, T. 11 N., R. 46 E.	Asotin Creek
39	Little Spokane Light & Power Co	GD	Milan, Deer Park, and Chattaroy.	Milan	Milan	Little Spokane River
40	Metaline Falls Light & Water Co	D	Metaline Falls			
41	Mills, J. L., & Sons	GD	Thorp	Thorp	Thorp	
42	Morton & McDaniel Electric Light Plant	GD	Conconully	Conconully	Conconully	
43	Northern Clarke County Light & Power Co	GD	Yacolt	Yacolt	S. 1, T. 4 N., R. 3 E.	Big Tree Creek
44	North Shore Light & Power Co	GD	Ilwaco and Long Beach	Ilwaco	Ilwaco	
45	North Washington Power & Reduction Co	GD	Republic	Republic	Republic	
46	Northwestern Electric Co	GD	Camas, Washougal, and Portland, Oreg.	Condit		White Salmon River
47	Northwestern Improvement Co	GD	Ronald, Roslyn, and Cle Elum.	Roslyn	S. 17, T. 20 N., R. 15 E.	
48	Northwest Electric & Waterworks	GD	Satsop and Montesano	Montesano	S. 31, T. 18 N., R. 7 W.	Silvia Creek
49	Oakville Light & Power Co	GD	Oakville	Oakville		
50	Okanogan Valley Power Co	GD	Okanogan, Bridgeport, and vicinity.	Patnos	S. 34, T. 30 N., R. 23 E.	Methow River
51	Do	GD	do	Pateros	Pateros	do
52	Olympia Light & Power Co	GD	Olympia and Tumwater	Olympia	Olympia	Tumwater River
53	Olympic Power Co	GD	Port Angeles and vicinity	Elwha Canyon	Elwha Canyon	Elwha River
54	Pacific Coast Coal Co	GD	Newcastle	Newcastle	Newcastle	
55	Rainier Heat & Power Co	GD	Seattle	Seattle	Seattle	
56	Similkameen Power Co	GD	Oroville and Nighthawk	Oroville	Oroville	Similkameen River
57	Skamania Light & Power Co	GD	Stevenson	Stevenson	Stevenson	
58	Spokane County Electric Co	D	Rockford			
59	Spokane & Inland Empire R. R. Co	GTD	Spokane	Nine Mile	S. 6, T. 26 N., R. 42 E.	Spokane River
60	Starbuck Electric Co	GD	Starbuck	Starbuck	Starbuck	
61	Stevens County Power & Light Co	GD	Myers Falls and vicinity	Myers Falls	Myers Falls	Colville River
	Stone & Webster	M				
62	Pacific Northwest Traction Co	D	Northwestern Washington	Sedro Woolley	Sedro Woolley	
	Puget Sound International Railway & Power Co.	GTD	do			
63	(Lessor, Everett Railway, Light & Water Co.)	L	do	Bond Street	Everett	
64	Puget Sound Traction, Light & Power Co	GTD	do	Bellingham		
65	Do			Electron	T. 17 N., R. 5 E.	Puyallup River
66	Do			Everett	Everett	
67	Do			Georgetown	Seattle	
68	Do			Nooksack	40 miles from Bellingham.	Nooksack River
69	Do			Post Street	Seattle	
70	Do			Snoqualmie No. 1	Snoqualmie Falls	Snoqualmie River
71	Do			Snoqualmie No. 2	do	do
72	Do			White River		
73	Tacoma Railway & Power Co			Tacoma	Tacoma	
74	Sulton Electric Co	GD	Sultan	Sultan	Sultan	
75	Superior Port Cement Co	GD	Baker	Baker		Bear Creek
76	Syndicate Heat & Power Co	GD	Tacoma	Tacoma	Tacoma	
77	Tillicum Development Co	GD	Loomis	Loomis	S. 34, T. 39 N., R. 25 E.	Toats Coula Creek
78	Toledo Electric Co	GD	Toledo	Toledo	Toledo	
79	Tumwater Light & Water Co	D	Leavenworth and Peshastin			
80	Van Ness, J. A., Lumber Co	GD	Winlock	Winlock	S. 5, T. 11 N., R. 2 W.	
81	Washington-Oregon Corporation	GTD	Southwestern Washington	Chehalis	Chehalis	
82	Do	GTD	do	Kalama	S. 7, T. 6 N., R. 1 E.	Kalama River
83	Washington Water Power Co	GTD	Eastern Washington and Western Idaho.	Little Falls	S. 20, T. 27 N., R. 39 E.	Spokane River
84	Do			Long Lake	S. 13, T. 27 N., R. 39 E.	do
85	Do			Spokane	S. 18, T. 25 N., R. 43 E.	do
86	Do			do	Spokane	
87	Washtucna Electric Light & Power Co	GD	Washtucna	Washtucna	Washtucna	Palouse River
88	Weller, Charles J	GD	Wilson Creek	Wilson Creek	Wilson Creek	
89	Wenatchee Valley Gas & Electric Co	GTD	North Central Washington	Dryden	S. 27, T. 24 N., R. 18 E.	Wenatchee River
90	Do			Entiat	S. 18, T. 25 N., R. 21 E.	Entiat River
91	Do			Wenatchee	S. 27, T. 22 N., R. 20 E.	Quil-toc Creek
92	Western Light & Power Co	GD	Washougal and Camas	Washougal	Washougal	Washougal River
93	Western Mills & Lumber Co	GD	Friday Harbor	Friday Harbor	Friday Harbor	
94	Wilkerson Light & Water Co	GD	Wilkerson	Wilkerson	Wilkerson	
95	Willapa Electric Co	GD	Raymond and South Bend	Raymond, No. 1	Raymond	
96	Do	GD	do	Raymond, No. 2	do	
97	Do	GD	South Bend	South Bend	S. 15, T. 14 N., R. 9 W.	

B.—MUNICIPAL PLANTS.

98		D	Blaine	Blaine		
99		GD	Bremerton and Charleston	Bremerton	Bremerton	
100		D	Cashmere	Cashmere		
101		D	Centralia	Centralia		

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

WASHINGTON—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
33			325	230		140				Mc. P.
34			150	135		75				Mc. O. C.
35		200				45	$0.13 -$0.08			Mc.O.P.C.
36			60	50		125				Mc.
37	Private	198	60	50		50	.12 .035	$0.08 -$0.01		C.
38	Do	3,300	1,390	2,330		1,900	.12 .07	.095- .035		Mc.O.P.C.
39		150				80				Mc. O. C.
40									Inland Portland Cement Co	C.
41		45				60				Mc.
42			61	25		10				Mc.
43	Private	100	30	30		75	.13 - .07	.03 - .005		Mc.O.P.C.
44			80	60	60	60	.20 - .10	.06 -		Mc. P. C.
45		750	540	425		675				Mc. O. P.
46	Private	18,000				12,000	.09	.05		O. M. P. C.
47	Private		1,500	1,500		1,850	.10 - .04	.08 - .02		M. O. M.C.
48	Do	313	325	375		450	.12 - .05	.08 - .02		O.Mc.M.P.
49					26	36				Mc.
50	Private	850				109	.14 - .06	.07 - .015		Mc. O. C.
51	Do	750				435	.14 - .08	.07 - .015		C.
52		1,600				1,000				Mc. O. P.
53		9,600				6,000				Mc. O. P.
54			250	235		140	1.50			C.
55			700	700		300				Mc.
56	Public	500				350	.10 - .06	.09 - .073		Mc. O. C.
57		100				75				Mc. O. P.
58									Washington Water Power Co.	Mc. P.
59		20,000				12,000	.12 - .025	[1]60.00 -25.00	do	O. M. C.
60		210				100				Mc. O. P.
61	Private	750				425	.12 - .04	.07 - .0065		Mc.O.P.C.
62							.08 - .06	.05 - .006		Mc. C.
63	Private		1,192	2,250		1,750	.08 - .06	.05 - .005	Puget Sound Traction, Light & Power Co.	C.
64	Do		1,515	3,700		3,000			Western Canada Power Co	Mc.O.M.C.
65	Do	15,000				14,000				Mc. O. C.
66	Do		1,218	2,500		1,700				Mc. O. C.
67	Do		7,000	16,000		13,000				Mc. O. C.
68	Do	3,300				1,500				Mc. O. C.
69	Do		6,400	9,260		3,200				Mc. O. C.
70	Do	20,000				11,000				Mc. O. C.
71	Do	11,000				8,800				Mc. O. C.
72	Do	30,000				20,000				O. C.
73	Do		4,100	4,450		4,700				Mc. O. C.
74		120				(70)				Mc. O.
75	Forest	1,500				1,100				Mc. O.
76			300	300		110				Mc.
77	Private	750				450				Mc. O. C.
78			50	35		24				Mc.
79									Great Northern Ry. Co	Mc. O. P.
80	Private		1,200	2,100		925				C.
81	Do		1,050	2,000		1,500	.12 - .04		Van Ness Lumber Co	Mc. O. C.
82	Do	970				675	.125- .04			Mc.O.P.C.
83	Public	36,000				22,790				Mc.O. P.C.
84	Private	45,000				27,800				Mc. O. C.
85		11,900				8,400				C.
86			6,000	16,000		12,000				Mc.M.P.C.
87		75				50				Mc. O.
88			29			50				Mc. O.
89	Private	2,400				1,300				Mc. O. P.
90	Do	2,100				1,200	.10 - .04			Mc. O. C.
91	Do	300				180				Mc. O. C.
92	Do	250	100	90		75	.10 - .05	.02 - .015		Mc. P. C.
93			150	100		50				Mc.
94			600	275		200				Mc.
95	Private		385	925		750	.125- .05	.07 - .015	Steam from Willapa Lumber Co.	Mc.O.M.C.
96	Do		(1,200)	1,333		1,250	.125- .05	.07 - .015		C.
97	Do	150				115	.125- .05	.07 - .015		O. M. C.
	Total, A	265,491	43,655	78,404	166	232,999				

B.—MUNICIPAL PLANTS.

98							$0.11 -$0.06	$0.7 -$0.04	British Columbia Electric Ry. Co.	Mc. C.
99			208	200		135				Mc. O.
100							.10 - .05	[2]48.00	Wenatchee Valley Gas & Electric Co.	Mc. C.
101									Washington-Oregon Corporation.	Mc.

[1] Lamp-hour.

[2] Horsepower year.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

WASHINGTON—Continued.

B.—MUNICIPAL PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
102	..	GD	Chewelah	Chewelah	S. 1, T. 32 N., R. 40 E.	East Fork Chewelah River.
103		D	Eatonville	Eatonville		
104		GD	Ellensburg	Ellensburg	Ellensburg	Yakima River
105		D	Port Angeles	Port Angeles		
106		GD	Seattle and Cedar Falls	Seattle	S. 4, T. 22 N., R. 8 E.	Cedar River
107		GD	Seattle	do	S. 20, T. 25 N., R. 4 E.	
108		GD	Steilacoom, Tacoma & Eatonville.	Tacoma	S. 32, T. 16 N., R. 4 E.	Misqually River
109		D	Waterville	Waterville		

C.—ALL OTHER PLANTS.

	American Power & Light Co					
110	Pacific Power & Light Co		Ice machines	Dayton	Dayton	Touchet Creek
111	Crescent Mining Co	G	Sawmill	Twisp		Twisp River
112	Crown Willamette Paper Co	G	Manufacturing	Camas	S. 11, T. 1 N., R. 3 E.	Lacamas Creek
113	Dechman, Louis	G	Sanitarium	Sanborn Creek	S. 30, T. 30 N., R. 9 W.	Sanborn Creek
114	Great Northern Ry. Co	G	Railroad	Leavenworth	Leavenworth	Wenatchee River
115	United States Reclamation Service	G	Pumping	Okanogan, No. 1	T. 33 N., R. 26 E.	
116	Do	G	do	Okanogan, No. 2	T. 34 N., R. 26 E.	

WEST VIRGINIA.

A.—PUBLIC UTILITY PLANTS.

	American Gas & Electric Co	H				
1	Wheeling Electric Co	GD	Wheeling and vicinity	Moundsville	Moundsville	
2	Do			Wheeling	Wheeling	
	American Railways Co	H				
3	Consolidated Light, Heat & Power Co	GD	Ashland, Ky., and Cabell and Wayne Counties, W. Va.	Kenova		
4	Ohio Valley Electric Ry. Co	D	do	Huntington		
	American Water Works & Electric Co. (Inc.)	H				
5	Brooke Electric Co	D	Warwood	Warwood		
6	Wheeling Traction Co	GD	Wheeling	Wheeling	Wheeling	
	Barstow, W. S., & Co. (Inc.)	M				
7	West Virginia Traction & Electric Co	GTD	Suburbs of Wheeling	Elm Grove	Elm Grove	
8	Do	GD	Morgantown	Morgantown, No. 1	Morgantown	
9	Do	GD	do	Morgantown, No. 2	do	
10	Do	GD	do	Morgantown, No. 3	do	
11	Beckley Electric Light & Power Co	D	Beckley and Mabscott	Beckley	Beckley	
12	Bethany Improvement Association	GD	Bethany	Bethany	Bethany	
13	Buckhannon Light & Water Co	GD	Buckhannon	Buckhannon	Buckhannon	
	Byllesby, H. M., & Co	M				
14	Appalachian Power Co	GTD	Southern West Virginia and southwestern Virginia	Bluefield	Bluefield	
15	Do			Welch	Welch	
16	Campbell, W. H., & Sons Light Plant	GD	Summerville	Summerville		
	Charleston-Interurban Railroad Co	GD				
17	(Lessor, Kanawha Valley Traction Co.)	L	Charleston	Charleston	Charleston	
18	Cherry River Boom & Lumber Co	GD	Richwood	Richwood	Richwood	
19	Clarksburg Gas & Electric Co	GD	Clarksburg	Clarksburg	Clarksburg	
20	Consumers Electric Light Co	GD	Mannington	Mannington	Mannington	
21	Consumers Heat, Light, Water & Power Co	GD	Belington	Belington	Belington	
22	Davis Electric Light Co	GD	Davis	Davis	Davis	
23	Elkins Power Co	GD	Elkins	Elkins	Elkins	
24	Fayette Public Service Corporation	D	Fayetteville and vicinity	Fayetteville		
25	Flattop Ice & Cold Storage Co	D				
	General Utilities & Operating Co	H				
26	Logan Light & Power Co	GD	Logan	Logan	Logan	
27	Gee Electric Co	GD		Wheeling	Wheeling	
28	Grafton Light & Power Co	GD	Grafton	Grafton	Grafton	
29	Harpers Ferry Electric Light & Power Co	GD	Harpers Ferry and vicinity	Harpers Ferry	Harpers Ferry	Potomac River
30	Hinton Water, Light & Supply Co	GD	Hinton	Hinton	Hinton	
31	Kanawha Traction & Electric Co	GD		Parkersburg	Parkersburg	
32	Keyser Electric Light Co	GD	Keyser	Keyser	Keyser	
33	Laurel Creek Electric Co	GTD	Lawton	Lawton	Lawton	
34	Logan Electric Co	GD	Logan	Logan	Logan	
35	Martinsburg Power Co	GD	Martinsburg, Bedington, Shepherdstown.	Martinsburg		Potomac River
36	Martin, J. A., Light Plant	GD	Terra Alta	Terra Alta	Terra Alta	
37	Matoaka Electric Power Co	GD	Matoaka	Matoaka	Matoaka	
38	Monongahela Valley Traction Co	GTD	Marion and Harrison Counties.	Hutchinson	Hutchinson	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

WASHINGTON—Continued.

B.—MUNICIPAL PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
102		50				50	$0.13 –$0.06			M. C.
103							[illegible]		[illegible]	M. C.
104	Private	1,660	325	250		950	[illegible]		[illegible]	M. O. C.
105									[illegible]	
106	Private	20,800				10,700	[illegible]	$0.035–$0.005		M. O. C.
107	Do	2,468	13,000			[illegible]	[illegible]	.035– .005		M. C.
108		32,000				24,000	[illegible]	.024– .0045	Puget Sound Traction, Light & Power Co.	Mc. O. C.
109									Wenatchee Valley Gas & Electric Co.	Mc. C.
	Total, B	54,510	3,001	13,450		41,010				

C.—ALL OTHER PLANTS.

110	Private	250								C.
111	Forest	25				20				O.
116		1,800	4,750	1,800		205			Northwestern Electric Co	O. M. C.
113	Forest	8				4				O.
114		8,500				7,500				O. C.
115	Public	250				187				C.
116	Private	300				187				C.
	Total, C	11,133	4,750	1,800		8,103				
	Grand total	331,134	51,406	93,654	166	282,112				

WEST VIRGINIA.

A.—PUBLIC UTILITY PLANTS.

1			450	500		300				C.
2			3,000	12,000		9,000				Mc. M. C.
3			5,000	6,670		5,000	$0.06 –$0.03	$0.03 –$0.01		Mc. M. C.
4									Consolidated Light, Heat & Power Co.	Mc. M.
5									West Penn Railways Co	Mc. M.
6			4,200	9,192		6,850				Mc. M.
7			1,850	2,500		2,330				Mc. M. C.
8			1,200	3,000		2,280				Mc. Mc.
9			1,200	3,000		2,260				Mc. C.
10			2,700	2,500		2,425				Mc. C.
11							.07 – .03	.07 – .03	Virginia Power Co	Mc. C.
12			(90)	100		(60)				Mc.
13			200	265		240				Mc.
14			1,500	(5,800)		3,525				Mc. M.
15			300	250		140				Mc. M.
16		27				25				
17			1,200	1,000		900				Mc. M.
18	Private		1,350	670		385				C.
19	Do		1,400	1,100		835	.05 – .015	.05 – .015		Mc. C.
20					485	275				Mc.
21	Private		250	110		75	.10			Mc.
22			125	125		90	.10 – .05			Mc. C.
23	Private		750	778		480	.10 – .04	.10 – .016		Mc. M. C.
24									Stuart Colliery Co	Mc.
25									Appalachian Power Co	Mc. C.
26			2,000	13,330		10,000		.022– .004		Mc.
27					80	55	.08 – .035		Wheeling Electric Co	Mc. C.
28	Private		600	800		675	[1] 1.00			Mc. M. C.
29	Do	470				295	.10 – .025			Mc. C.
30			600	725		500				Mc.
31	Private		2,050	2,000		1,405	.075	.04		Mc. M. C.
32	Do		450	600		500	.10 – .06			Mc. M. C.
33	Do		684	670		400				Mc. C.
34			300	450		270				Mc.
35		2,250	2,000	2,000		2,000				Mc. O.
36			300	400		300				Mc. C.
37	Private					200	.12 – .08	.035– .01		C.
38	Do			1,000		3,750	.06 – .03	.02 – .0125	Consolidated Coal Co	Mc. M. C.

[1] Lamp-month.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

WEST VIRGINIA—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
39	Newell Water & Power Co	GD	Newell	Newell	Newell	
40	Northern Virginia Power Co	GD	Northeastern West Virginia and northern Viginia	Berkeley Springs	Berkeley Springs	Cacapon River
41	Do			Millville	Millville	Shenandoah River
	Ohio Fuel Supply Co	H				
42	West Virginia Light & Water Co	GD	Charleston and Edgewood	Charleston	Charleston	
43	Parsons Electric Co	GD	Parsons, Hambleton, and Hendricks.	Parsons		
44	Piedmont Electric Light & Power Co	GD	Mineral County, W. Va., Westernport, Md.	Piedmont	Piedmont	
45	Point Pleasant Water & Light Co	GD	Point Pleasant	Point Pleasant	Point Pleasant	
46	Princeton Power Co	GD	Princeton	Princeton	Princeton	
47	St. Albans Water & Electric Light Co	GD	St. Albans	St. Albans	St. Albans	
48	Shepherdstown Electric Light & Power Co	GD	Shepherdstown	Shepherdstown	Shepherdstown	
49	Sistersville Electric Light & Power Co	GTD	Tyler and Wetzel Counties	Sistersville	Sistersville	
50	Sugar Creek Coal & Coke Co	D	Mount Hope	Mount Hope	Mount Hope	
	Tri-State Railway & Electric Co	H				
51	Wellsburg Electric, Heat & Power Co	D	Hancock and Brooke Counties.			
	United Railways Investment Co	H				
52	Southern Heat, Light & Power Co	GD	Benwood and McMechen		Benwood	
53	Virginia Power Co	GTD	Kanawha, Fayette, and Raleigh Counties.	Cabin Creek Junction	Cabin Creek Junction	
54	Virginia-Western Power Co	GD	Ronceverte and Lewisburg	Ronceverte	Ronceverte	
55	Weston Electric Light, Power & Water Co	GD	Weston	Weston	Weston	
	West Virginia Light & Traction Co	H				
56	Montgomery Utilities Co	D	Montgomery	Montgomery		Virginia Power Co
	West Virginia Development Co	H				
57	Parsons Milling & Mercantile Co	TD	Parsons, Hendricks and Hambleton.	Parsons Mill		E. F. K. Cheat River.
58	West Virginia Pulp & Paper Co	GD	Cass	Cass	Cass	
59	Wheeling Valley Light & Power Co	GD	Woodsdale	Woodsdale	Woodsdale	
60	Williamson Light & Ice Co	GD	Williamson	Williamson	Williamson	

B.—MUNICIPAL PLANTS.

61		GD	Grafton	Grafton	Grafton	
62		GD	Kingwood	Kingwood	Kingwood	
63		GD	Phillipi	Phillipi	Phillipi	
64		GD	Ravenswood	Ravenswood	Ravenswood	
65		GD	Rowlesburg	Rowlesburg	Rowlesburg	
66		GD	Wheeling	Wheeling	Wheeling	

C.—ALL OTHER PLANTS.

67	Charleston-Dunbar Traction Co	G	Electric railway	Dunbar	Dunbar	
68	Consolidated Coal Co. (Inc.)		Mining	Hutchinson	Hutchinson	
69	Elkins Electric Railway Co	G	Electric railway	Elkins	Elkins	
70	Harpers Ferry Paper Co		Mills	Harpers Ferry	Harpers Ferry	Potomac River
71	Morris Harvey College	G	Lighting and pumping	Barboursville	Barboursville	
72	Quincy Coal Co. (Inc.)	G	Mining	Quincy	Quincy	
73	Shenandoah Pulp Co		Mills	Harpers Ferry	Harpers Ferry	Shenandoah River
	Union Carbide Co					
74	Electric Metallurgical Co			Glen Ferris		Kanawha River
75	Do			Kanawha Falls		do
76	Union Traction Co	G	Electric railway	Sistersville	Sistersville	

WISCONSIN.

A.—PUBLIC UTILITY PLANTS.

1	Abbotsford Electric Co	GD	Abbotsford and Dorchester	Abbotsford	Abbotsford	
2	Albany Electric Light & Milling Co	GD	Albany	Albany	Albany	Sugar River
3	Albers, Wm., Light Plant	GD	Prairie du Sac	Prairie du Sac	Prairie du Sac	
4	Alma Electric Light Co	GD	Alma	Alma	Alma	
5	Almond Electric & Power Co	GD	Almond	Almond	Almond	
	American Gas Co. of New Jersey	H				
6	Waukesha Gas & Electric Co	GD	Waukesha	Waukesha	Waukesha	
	American Light & Traction Co	H				
7	Madison Gas & Electric Co	GD	Madison	Madison	Madison	
8	St. Croix Power Co	GTD	St. Paul, Minn	Apple River Falls		Apple River

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

WEST VIRGINIA—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
39	Private		930	900		750	$0.12 -$0.02	$0.05 -$0.02		Mc. C.
40	Do	1,700	400	833		1,925	.10 - .04	.04 - .011		Mc. C.
41	Do	3,050	1,500	2,000		3,050	.10 - .04	.04 - .011		Mc. C.
42			800	670		800	.15			Mc. M.
43		50			125	60				Mc.
44	Private		300	575		420	.10 - .05			Mc. C.
45	Do		600	300		187	.10 - .04	.04		Mc. C.
46			600	250		375				Mc. M.
47			125	85	55	125				Mc.
48			60	50		37½	.10			Mc. C.
49					1,800	2,335				Mc.
50							.075- .05	.04		C.
										Mc. M.
51									West Penn Traction Co	Mc. M.
										M.
52			450	400		325				Mc. M.
53			7,200	20,000		20,000		.015		Mc. M. O.C
54			250	500		415				Mc. M.
55	Private		600	550		450	.08 - .03	.08 - .03		Mc. M. C.
56							.08 - .06	.06 - .03		Mc. C.
57	Private	90			125	60				C.
58			600	60		75				Mc. C.
59					155	(90)				Mc.
60	Private		400	750		595	.10 - .06	.05 - .03	Tug River Power Co	Mc. M. C.
	Total, A	7,637	50,564	102,458	2,825	89,809				

B.—MUNICIPAL PLANTS.

61			330	200		(120)				Mc.
62			150	150		100	$0.10			Mc. C.
63			230	200		120				Mc.
64	Private				155	80	.05			Mc. C.
65	Do		200	150		100	.10			Mc. C.
66	Do		600	900		304				Mc. C.
	Total, B		1,510	1,600	155	824				

C.—ALL OTHER PLANTS.

67						350				Mc. M.
68	Private				6,000	5,120				C.
69			150	340		200				Mc. M.
70		2,400								C.
71					40	30				C.
72	Private		300	200	200					C.
73		2,000								C. O.
										M.
74		11,750							Sistersville Electric Light & Power Co.	O.
75										
76					1,795	1,175				Mc. M.
	Total, C	16,150	450	540	8,035	6,875				
	Grand total	23,787	52,524	104,598	11,015	97,508				

WISCONSIN.

A.—PUBLIC UTILITY PLANTS.

1	Private				100	55	$0.15 -$0.12			C. Mc.
2	Do	70			75	45	.10			C. Mc.
3			80	60		40				Mc.
4	Private		70	65		50	.10 - .06			C. Mc.
5					30	37½				Mc.
6	Private		1,180	3,000		3,750	.13 - .07	$0.035 $0.026		C. M. Mc.
7			3,355	5,796	560	4,662				C. M. Mc.
8		5,600			3,000					Mc. O.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

WISCONSIN—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
	American Public Utilities Co	H				
9	Wisconsin-Minnesota Light & Power Co	GTD	Eau Claire, Chippewa, Clark, Jackson, Dunn, Pierce, and La Crosse Counties, Wis., and Dakota, Goodhue, and Wabasha Counties, Minn.	Cedar Falls	Cedar Falls	Red Cedar River
10	Do	GTD		Chippewa Falls	Chippewa Falls	Chippewa River
11	Do	GTD		Dells Dam		
12	Do	GTD		Eau Claire	Eau Claire	Chippewa River
13	Do	GTD		La Crosse		
14	Do	GTD		Menomonie	Menomonie	Red Cedar River
15	Amery Electric Co	D	Amery	Amery	Amery	
16	Antigo Electric Co	GD	Antigo	Antigo	Antigo	
17	Apple River Milling Co	GD	Amery and Clear Lake	Amery	Little Falls	Apple River
18	Athens Electric Light & Power Co	GD	Athens	Athens	Athens	
19	Augusta Light & Telephone Co	GD	Augusta	Augusta	Augusta	
20	Baldwin Electric Light & Fuel Co	GD	Baldwin	Baldwin	Baldwin	
21	Baraboo Gas & Electric Co	GD	Baraboo	Baraboo	Baraboo	
22	Bark River Electric Light & Power Co	GD	Rome and Sullivan	Rome	Rome	Bark River
23	Beaver Dam Light & Power Co	HGD	Dodge County	Beaver Dam	Beaver Dam	
24	Horicon Light & Power Co., The	D	do	Horicon	Horicon	
25	Belleville Milling & Electric Light Plant	GD	Belleville	Belleville		
26	Beloit Water, Gas & Electric Light Co	GD	Beloit and South Beloit, Ill.	Beloit	Beloit	
27	Benton Electric Light & Waterworks	D	Benton	Benton	Benton	
28	Berlin Public Service Co	GD	Berlin	Berlin	Berlin	
29	Birnamwood Electric Light Co	GD	Birnamwood	Birnamwood	Birnamwood	
30	Bischel, L. J., Light Plant	GD	Dousman	Dousman	Dousman	
31	Bloomer Electric Light & Power Co	D	Bloomer	Bloomer	Bloomer	
32	Burkhardt Milling & Electric Power Co	GD		Hudson	North Hudson	Willow River
33	Do	GD	St. Croix County	Little Falls	Hudson	do
34	Do	GD	Burkhardt	Willow River Falls	St. Joseph	do
	Byllesby, H. M., & Co	M				
35	Apple River Power Co	GTD		Somerset		
36	St. Croix Falls-Wisconsin Improvement Co	GTD	St Croix Falls and Osceola	St. Croix Falls		
37	Calumet Service Co	GD	Chilton	Chilton	Chilton	
38	Cambridge Light & Power Co	GD	Cambridge	Cambridge	Cambridge	
39	Campbellsport Electric Light & Power Co	GD	Campbellsport and Dundee	Campbellsport	Campbellsport	
40	Cazenovia Light & Power Co	GD	Cazenovia	Cazenovia	Cazenovia	Little Baraboo River
41	Chetek Light & Power Co	GD	Chetek	Chetek	Chetek	Chetek River
42	Clayton Electric Co	GD	Clayton	Clayton	Clayton	
43	Commonwealth Power Co	GD	Milwaukee	Milwaukee	Milwaukee	
44	Connor, R., Co	GD	Stratford	Stratford	Stratford	
45	Connor Lumber & Land Co	GD		Laona	Laona	
46	Coon Valley Milling Co	D	Coon Valley	Coon Valley	Coon Valley	Coon Creek
47	Consolidated Water Power & Paper Co	GD	Grand Rapids and Biron	Grand Rapids	Grand Rapids	Wisconsin River
48	Dahle Bros	GD	Iola	Iola	Iola	
49	Darlington Electric Light & Water Power Co	D	Darlington	Darlington	Darlington	
50	Davis Mill Co	GD	Galesville	Galesville	Galesville	Beaver River
51	De Fer, J. J., Electric Light Plant	GD	Saxon	Saxon	Saxon	
52	Dells Paper & Pulp Co	GD		Eau Claire		Chippewa River
53	De Pere Electric Light & Power Co	GD	De Pere and West De Pere	De Pere		
54	Durand Light & Power Co	GD	Durand, Eau Galle, and Arkansaw.	Durand	Eau Galle	Eau Galle
55	Dwinell, B. E., Electric Light Co	GD	Amherst	Amherst	Amherst	Waupaca River
56	Eastern Wisconsin Railway & Light Co	GTD	Fond du Lac and North Fond du Lac.	Fond du Lac		
57	Endeavor Light & Power Co	GD	Endeavor	Endeavor	Endeavor	
58	Equitable Electric Light Co	GD	Genoa Junction and Williams Bay.	Lake Geneva	Lake Geneva	White River
59	Fairwater Electric Light & Auto Co	GD	Fairwater	Fairwater		
60	Falls Light & Power Co	GD	Sheboygan Falls	Sheboygan Falls	Sheboygan Falls	
61	Fish, C. W., Lumber Co	GD	Elcho	Elcho	Elcho	
62	Fountain City Light & Power Co	D	Fountain City	Fountain City	Fountain City	
63	Friendship Electric Light & Power Co	GD	Friendship and Adams	Friendship	Friendship	Big Rochea Creek
64	Gays Mills Electric Light & Power Co	GD	Gays Mills	Gays Mills	Gays Mills	Kickapoo River
65	Glenwood & Downing Light & Power Co	GD	Glenwood City and Downing	Glenwood	Glenwood City	
66	Grafton Light, Heat & Power Co	GD	Grafton	Grafton	Grafton	Milwaukee River
67	Great Northern Pail Co	GD	Gillett	Gillett	Gillett	
68	Green Bay & Mississippi Canal Co	GTD		Combined Locks	Combined Locks	Fox River
69	Green Lake Electric Co	D	Green Lake	Green Lake	Green Lake	
70	Grimh, Gothfried	GD	Frederic	Frederic	Frederic	South Fork, Clam River.
71	Hillsboro Light & Power Co		Hillsboro	Hillsboro	Hillsboro	West Branch, Baraboo River.
72	Humphrey, A. G., Light Plant	GD	Rio	Rio	Rio	
73	Humphrey, E., Electric Light & Flour Mill	GD	Delafield	Delafield		Bark River
74	Hussa Bros. Electric Light & Power Plant	GD	Bangor	Bangor	Bangor	
75	Hustiford Light, Power & Manufacturing Co	GD	Hustiford	Hustiford	Hustiford	Rock River
76	Iron River Water, Light & Telephone Co	GD	Iron River	Iron River	Iron River	
77	Ironwood & Bessemer Railway & Light Co	GD	Ashland	Ashland		
78	Do	GTD	do	do	Ashland	White River
79	Island Woolen Co	GD	Baraboo	Baraboo	Baraboo	Baraboo River
80	Janesville Electric Co	HGTD	Fulton	Fulton	Fulton	Yahara River
81	Do		Rock County	Indian Ford	S. 16–21, T. 4 N., R. 12 E.	Rock River
82	Edgerton Electric Light Co	D	Edgerton	Edgerton		
83	Kewaskum Electric Light Co	GD	Kewaskum	Kewaskum	Kewaskum	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

WISCONSIN—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
9		7,200				5,000	$0.09 –$0.03	$0.06 –$0.007		C. Mc.
10		2,500				1,700	.09 – .03	.06 – .007		C. Mc
11		650	400	400		600				Mc.
12		800				500	.09 – .03	.06 – .007		C.
13			2,650	3,125	170	2,000			Wisconsin Railway, Light & Power Co.	C. Mc.
14		2,200				1,200	.09 – .03	.06 – .0075		C. Mc.
15									Apple River Milling Co	C. Mc.
16	Private		825	600		595	.12 – .06	.10 – .03		C. M. Mc.
17	Do	210				115				C.
18	Do		60	70		60	.10 – .07	.10 – .07		C. M. Mc.
19			100	195		140	.12 – .06		Wisconsin-Minnesota Light & Power Co.	C. Mc.
20			115	100		60				Mc.
21	Private		450	235		287	.12	.05		C. M. Mc.
22	Do	150	400	125		212	.15 – .10	.07 – .03		C. Mc.
23			600	600		505	.15 – .07	.08 – .03		C. M. Mc.
24							.15 – .07	.08 – .03	Beaver Dam Light & Power Co	C. M. Mc.
25		40				16				Mc.
26	Private	275	1,200	2,667		2,200	.12 – .04	.04 – .015		C. M. Mc.
27									Interstate Light & Power Co.	Mc.
28			950	900	750	1,400				Mc.
29			250	150		55				Mc.
30					15	7½				Mc.
31							.125– .08	.06 – .03	Wisconsin-Minnesota Light & Power Co.	C. Mc.
32	Private	425				300	.10 – .08	.05		C. M. Mc.
33	Do	250				150	.10 – .08	.05		C.
34	Do	1,000				750				C.
35		1,600				975				M. Mc.
36		25,200				15,000				M. Mc.
37			250	210		175				Mc.
38						29				Mc.
39					175	125				Mc.
40	Private	80				30	.10			C. Mc.
41		75				60				C. Mc.
42	Private				12	5				C. Mc.
43			3,000	6,500		5,500		.035– .01		C. Mc.
44	Private		160	87		40	.15			C. Mc.
45										M.
46	Private	80				150	.125			C. Mc.
47		10,000				2,700	.015			C. Mc.
48	Private		110	150		105				C. Mc.
49									Interstate Light & Power Co.	Mc.
50	Private	180				90	.08			C. Mc.
51			300	50		35				Mc.
52		1,000								O.
53		286				200			Green Bay Traction Co.	Mc.
54	Private	515				350	.04	.05 – .03		C. Mc.
55	Do	85				60	.10			C. Mc.
56	Do		1,620	2,950		3,150	.108– .054	.078– .027		C. M. Mc.
57					20	15				C. Mc.
58	Private	150	550	400		350	.15 – .06	.075– .03		C. Mc.
59		30				65				Mc.
60			300	200		90	.15 – .06	.10 – .06		C. Mc.
61	Private		150	90		25				C. Mc.
62									Wisconsin Railway, Light & Power Co.	Mc.
63		100				110	.15 – .08			C. Mc.
64	Private	100				75	.10	.05 – .03		C. Mc.
65	Do		100	90		75	.12			C. Mc.
66	Do	115				250	.12 – .03	.10 – .03	Milwaukee Northern R. R. Co.	C. Mc.
67			160	225		(135)				Mc.
68		6,100	2,250	900						C.
69							.16 – .10	.10 – .06	Ripon Light & Water Co.	C. Mc.
70	Private	75				45	.10			C.
71	Do	75	100	40		30				C. Mc.
72			65	65		60				Mc.
73		26			20	20				C. Mc.
74	Private		355	135		115	.12 – .08			C. Mc.
75		150	80	50		100	.12	.08		C. Mc.
76	Private		175	275		308				C. Mc.
77			500	500		325	.12 – .06	.10 – .02		C. Mc.
78	Private	1,200				1,000	.12 – .06	.10 – .02		C. Mc. O.
79	Do	250				45	.09	.08 – .02		C.
80		369				150	.10 – .05	.05 – .02		C.
81		211				85	.10 – .05	.05 – .02		C. M. Mc.
82									Janesville Electric Co.	C. M. Mc.
83			(70)	80		(50)				Mc.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY, **WISCONSIN**—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
84	Ladysmith Lighting Co	GD	Ladysmith	Ladysmith		
85	La Farge Electric Co	GD	La Farge	La Farge	La Farge	Kickapoo River
86	Lancaster Light & Power Co	GD	Fennimore, Boscobel, and Lancaster.	Lancaster	Lancaster	
87	Larson & Sons	GD	Colfax	Colfax		
88	La Valle Electric Light Co	GD	La Valle	La Valle		
89	Liebscher & Shaefer	GD	Thiensville	Thiensville		
90	Little Wolf River Lumber Co	GD	Manawa	Manawa		
91	Lomira Electric Light & Power Co	GD	Lomira	Lomira	Lomira	
92	McGowan Water, Light & Power Co	GD	Milton Junction	Milton Junction	Milton Junction	
93	Manitowoc & Northern Traction Co	GTD	Manitowoc	Manitowoc	Manitowoc	
94	Martintown Electric Light & Power Co	GD	Martintown and Winslow, Ill.	Martintown		
95	Mauston Electric Service Co	GD	Mauston	Mauston	Mauston	Lemonweir River
96	Medford Light & Heating Co	GD	Medford	Medford	Medford	
97	Mellen Water & Light Co	GD	Mellen	Mellen	Mellen	Bad River
	Menasha Woodenware Co					
98	Menasha Paper Co	GD	Ladysmith	Ladysmith	Ladysmith	Flambeau River
99	Menomonee Falls Electric Light Co	GD	Menomonee Falls	Menomonee Falls	Menomonee Falls	
100	Merrill Railway & Lighting Co	GTD	Merrill	Merrill	Merrill	Wisconsin River
	Middle West Utilities Co	H				
101	Illinois Northern Utilities Co	GD	Fontana and Walworth	Walworth	Walworth	
102	Milton Water, Light & Power Co	D	Milton	Milton	Milton	
103	Milwaukee Northern Railway Co	GTD	Cedar Grove, Grafton, and Postburg.	Port Washington	Port Washington	
104	Mineral Point Public Service Co	GD	Iowa and Grant Counties	Mineral Point	Mineral Point	
105	Mishicot Electric Light & Power Co	GD	Mishicot	Mishicot		
106	Mondovi Light & Power Co	GD	Mondovi	Mondovi	Mondovi	Whelan and Ford Creeks.
107	Monroe Electric Co	GD	Monroe	Monroe	Monroe	
108	Montello Granite Co	GD	Montello	Montello		
109	Mosinee Electric Light & Power Co	D	Mosinee and Kronenwetter	Mosinee		
110	Mt. Horeb Heat, Light & Power Co	GD	Mount Horeb	Mount Horeb	Mount Horeb	
111	Murdock Electric Light Co	GD	Bristol	Bristol	Bristol	
112	Necedah Milling & Electric Co	GD	Necedah	Necedah	Necedah	Yellow River
113	Neillsville Electric Co	GD	Neillsville	Neillsville	Neillsville	
114	Nekoosa-Port Edwards Paper Co	GD		Nekoosa		
115	Do	GD		Port Edwards		
116	Do	GD	Port Edwards	do	Port Edwards	
117	Neshkoro Light & Power Co	GD	Marquette and Waushara Counties.	Neshkoro	Neshkoro	White River
118	Neshonoc Electric Light & Power Co	GD	West Salem	West Salem		
119	Newell, S. D., Light Plant	GD	Seymour	Seymour	Seymour	
120	New Richmond Roller Mills Co	GD	New Richmond, Star Prairie, and Deer Park.	New Richmond, No. 1		Apple River
121	Do			New Richmond, No. 2		do
122	Do			New Richmond	New Richmond	
123	Newtons, O. I., Sons Co	GD	Sparta	Sparta	Sparta	
	North American Co	H				
124	Milwaukee Electric Railway & Light Co	GTD	Jefferson, Milwaukee, Walworth, Waukesha, Racine, Washington counties	Commerce Street	Milwaukee	
125	Do			Oneida Street	do	
126	Do	GTD	Milwaukee	Public Service Building.	do	
127	Milwaukee Light, Heat & Traction Co	GTD	Racine and Kenosha	Racine	Racine	
128	North Milwaukee Light & Power Co	D	North Milwaukee	North Milwaukee	North Milwaukee	
129	Wells Power Co	GD	Milwaukee	Milwaukee	Milwaukee	
130	Wisconsin Gas & Electric Co	GD	Burlington	Burlington	Burlington	White River
131	Do	GD	Kenosha	Kenosha	Kenosha	
132	Do	GD	Watertown	Watertown	Watertown	Rock River
133	Northwestern Iron Co			Mayville		
134	Northwestern Light & Power Co	D	Mayville	do	Mayville	
135	Northwestern Lumber Co	GD	Stanley	Stanley	Stanley	
136	Oakfield Light & Power Co	D	Oakfield	Oakfield	Oakfield	
137	Oconomowoc River Power Co	GD	Oconomowoc	Oconomowoc	Oconomowoc	Oconomowoc River
138	Oconto Electric Co	GD	Oconto	Oconto	Oconto	
139	Omro Electric Light Co	GD	Omro	Omro	Omro	
140	Oostburg Light, Heat & Power Co	GD	Oostburg	Oostburg	Oostburg	
141	Oshkosh Gas Light Co	GD	Oshkosh	Oshkosh	Oshkosh	
142	Oslo Light & Power Co	GD	Manitowoc County	Manitowoc		
143	Owen, Jno. S., Lumber Co	GD	Owen	Owen	Owen	
144	Paramount Power & Realty Co	GD		Beaver Dam	Beaver Dam	Beaver Dam
145	Pardeeville Electric Light Co	GD	Pardeeville	Pardeeville	Pardeeville	
146	Park Falls Water, Light & Power Co	GD	Park Falls	Park Falls	Park Falls	Flambeau River
147	Paustian, F., Milling Co	GD	Brillion	Brillion	Brillion	
148	Pederson Bros. Co	GD	Luck	Luck	Luck	
149	Peoples Land & Manufacturing Co	D	Oconto	Oconto	Oconto	
150	Peshtigo Lumber Co	GD	Peshtigo and Oconto	Peshtigo		Peshtigo River
151	Phillips Light, Water, Heat & Power Co	GD	Phillips	Phillips	Phillips	
152	Plankinton Electric Light & Power Co	D	Milwaukee	Milwaukee	Milwaukee	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

WISCONSIN—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from	Source of information.
84		250				320				Mc.
85	Private	125				99	$0.05			C. Mc.
86	Do		200	190		200	$0.125 - .065	$0.08 $0.05	Interstate Light & Power Co.	C. Mc.
87		85			50	200				Mc.
88		160				25				Mc.
89					27	15				Mc.
90		160				100				Mc.
91	Private				40	25	.16	.16		C. Mc.
92					32	22			Janesville Electric Co.	Mc.
93	Private		350	350		400	.10	.06 - .04		C. M. Mc.
94		(125)				75				Mc.
95	Private	190	150	150		100	.165	.05 - .02		C. Mc.
96			140	160		107½	.10 - .06			C. Mc.
97		215	65	45	55	180	.10 - .04			C. M. Mc.
98		3,000	1,600	500					Ladysmith Lighting Co.	C. O.
99	Private				50	60	.12			C. Mc.
100	Do	3,900	400	250		450	.10 - .03	.10 - .02		C.M.Mc. O
101			800	800		450				C.
102							.20 - .15	.10	Janesville Electric Co.	C. Mc.
103	Private				4,000	2,000	.10 - .03	.10 - .01416		C. M. Mc.
104	Do		2,000	4,500		3,350	.14 - .04	.08 - .02		C. Mc.
105		92				40				Mc.
106	Private	137	75	80	70	87½	.13	.04		C. Mc.
107			500	800		250				Mc.
108		250	200	150		164				Mc.
109	Private						.12 - .07	.10 - .05	Warsaw Sulphate Fibre Co.	C. Mc.
110										C. Mc.
111					12	6				Mc.
112	Private	200	125	120		50	.15 - .10			C. Mc.
113			125	125		100				Mc.
114		10,700								O.
115										
116			(50)	(80)		50				Mc.
117	Private	300				225	.10 - .05	.05 - .04		C. Mc.
118		150				60				Mc.
119			100	85		110				Mc.
120	Private	1,200				800	.10	.05		C. Mc.
121	Do	300				200				C.
122	Do		(400)	400		400	.10	.05		C.
123		485	150	125		350				Mc.
124	Private		16,984	83,000		66,775	.1045- .01	.057- .01	Southern Wisconsin Power Co.	C.
125	Do		4,438	6,370		4,750	.1045- .01	.057- .01	Wisconsin River Power Co.	C. M. Mc.
126	Do		4,000	6,030		4,500	.1045- .01	.057- .01		C. Mc.
127	Do		2,500	12,060		9,875	.1045- .01	.057- .01	T. M. E. R. & L. Co.	C. Mc.
128									Milwaukee Electric Railway & Light Co.	C. Mc.
129	Private		2,450	2,000		1,550	.10 - .04	.06 - .01		C. Mc.
130	Do	150	450	300		325	.11 - .05	.06 - .01	Milwaukee Light, Heat & Traction Co.	C. Mc.
131	Do		1,140	2,595		2,125	.12	.08	do.	C. M. Mc.
132	Do	300				900	.12 - .05	.08 - .01	Milwaukee Electric Railway & Light Co.	C. Mc.
133										O.
134									Northwestern Iron Co.	C. Mc.
135			300	200		180				Mc.
136	Private						.20 - .09	.07 - .06	Eastern Wisconsin Railway & Light Co.	C. Mc.
137	Do	100				75	.02			C. Mc.
138			300	150	120	175	.07 - .02	.05 - .015		C. Mc.
139	Private		75	65		57	.16 - .09			C. Mc.
140	Do				12	7½	.15		Milwaukee Northern R. R.	C. Mc.
141			1,875	2,000		1,500	.12	.10 - .08		C. M. Mc.
142		195	125	80		50				Mc.
143	Private		250	140		133	.13			C. Mc.
144	Do									C.
145	Do	60	60	60		80	.10 - .06	.10 - .06		C. Mc.
146	Do	280				125	.12	.12		C. Mc.
147					165	150	.12 - .05	.03	Wisconsin Electric Service Co.	
148			75	50		45				Mc.
149									Peshtigo Lumber Co.	Mc.
150		480				440				Mc. O.
151			450	750		440				Mc.
152										Mc.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

WISCONSIN—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
153	Portage Electric Light & Power Co	GD	Portage	Portage	Portage	
154	Prairie City Electric Co	GD	Prairie du Chien	Prairie du Chien	Prairie du Chien	
155	Proctor, W. C	GD	Scandinavia, Iola, and Waupaca.	Scandinavia	Scandinavia	Little Wolf River
156	Railway Exchange Building Co			Milwaukee		
157	Random Lake Light & Power Co	GD	Random Lake	Random Lake	Random Lake	
158	Red Cedar Valley Electric Co	GD	Rice Lake, Cameron, and Barron.	Rice Lake	Rice Lake	Red Cedar River
159	Rhinelander Lighting Co	D	Rhinelander		Rhinelander	
160	Rhinelander Power Co	GTD	do	Rhinelander	do	Wisconsin River
161	Richards Bros. Light Plant	GD	Gresham	Gresham		
162	Ripon Light & Water Co	GD	Ripon and Green Lake	Ripon	Ripon	
163	River Falls Power Co	GD	Prescott	Prescott		
164	Rose Milling Co	GD	Wild Rose	Wild Rose	Wild Rose	Pines River
	Sheboygan Light, Power & Railway Co	H				
165	Sheboygan Railway & Electric Co	GTD	Sheboygan and Elkhart	Sheboygan	Sheboygan	
166	Soldiers Grove Electric Co	GD	Soldiers Grove	Soldiers Grove	Soldiers Grove	Kickapoo River
167	Southern Wisconsin Power Co	GTD	Milwaukee, Portage, and Kilbourn.	Kilbourn	Kilbourn	Wisconsin River
168	Starks & Skeel Milling & Electric Co	GD	Plainfield	Plainfield	Plainfield	
169	Stevens Point Lighting Co	GD	Stevens Point	Stevens Point		
170	Superior Water, Light & Power Co	GD	Superior and Itasca	Superior	Superior	
171	Theresa Electric Light & Power Co	D	Theresa		Theresa	
172	Tomahawk Light, Telephone & Improvement Co.	GD	Tomahawk	Tomahawk	Tomahawk	Tomahawk River
173	Do	GD	do	do	do	
174	Tomah Electric & Telephone Co	GD	Tomah	Tomah	Tomah	
175	United Heat, Light & Power Co	GD	Delavan	Delavan	Delavan	
176	Do	GD	Sharon	Sharon	Sharon	
177	Viola Light & Power Co	GD	Viola	Viola		
178	Viroqua Electric Light Co	GD	Viroqua	Viroqua	Viroqua	
179	Voeck, A. H., Light Plant	GD	North Freedom	North Freedom	North Freedom	
180	Warren, George, Co	GD	Warrens	Warrens	Warrens	
181	Washburn Electric Light & Power Co	D	Washburn	Washburn	Washburn	
182	Waupaca Electric Light & Ry. Co	GTD	Waupaca	Waupaca	Waupaca	Waupaca River
183	Wausau Street Railroad Co	GTD	Wausau, Schofield, and Rothschild.	Wausau	Wausau	Wisconsin River
184	Wausau Sulphate Fibre Co			Mosinee		
185	West Bend Heating & Lighting Co	GD	West Bend	West Bend	West Bend	Milwaukee River
186	Westboro Lumber Co	GD	Westboro	Westboro	Westboro	
187	Westfield Milling and Electric Light Co	GD	Westfield	Westfield	Westfield	
188	Weyauwega Electric Light Co	GD	Weyauwega	Weyauwega	Weyauwega	Waupaca River
189	Whitewater Electric Light Co	GD	Whitewater	Whitewater	Whitewater	
	Willow River Lumber Co	H				
190	Hayward Electric Light & Power Co	GD	Hayward	Hayward	Hayward	Namekagon River
191	Wilton Light & Power Co	GD	Wilton	Wilton		
192	Winneconne Heat, Light & Power Co	GD	Winneconne	Winneconne	Winneconne	
193	Wisconsin Electric Railway Co	GD	Oshkosh	Oshkosh	Oshkosh	
194	Wisconsin Foundry & Steel Co	GD	Cedar Groove	Cedar Grove	Cedar Grove	
195	Wisconsin Log & Manufacturing Co	GD	Boyd	Boyd	Boyd	
196	Wisconsin Railway, Light & Power Co	GTD	La Crosse, Wis. and Winona, Minn.	Hatfield	Hatfield	Black River
197	Wisconsin River Power Co	GTD	Milwaukee, Sauk, Dane, and Columbia Counties.	Prairie du Sac	Prairie du Sac	Wisconsin River
	Wisconsin Securities Co	H				
198	Wisconsin Public Service Co	GD	Brown, Marinette, Outagamie, and Calumet Counties.	Green Bay	Green Bay	
199	Do	GD		High Falls	Crivitz	Peshtigo River
200	Wisconsin Traction, Light, Heat & Power Co	GTD	Appleton, Nenah, and Menasha.	Appleton		
201	Wittenberg Electric Co	GD	Wittenberg, Eland, and Elderon.	Wittenberg	Wittenberg	Embarrass River

B.—MUNICIPAL PLANTS.

202		GD	Algoma	Algoma	Algoma	
203		GD	Arcadia	Arcadia	Arcadia	
204		GD	Argyle	Argyle	Argyle	
205		GD	Barron	Barron	Barron	Yellow River
206		GD	Bayfield	Bayfield	Bayfield	
207		GD	Belmont	Belmont	Belmont	
208		GD	Black River Falls	Black River Falls	Black River Falls	
209		GD	Blair	Blair	Blair	
210		GD	Blanchardville	Blanchardville	Blanchardville	
211		D	Boscobel	Boscobel	Boscobel	
212		GD	Brodhead	Brodhead	Brodhead	Sugar River
213		GD	Browntown	Browntown	Browntown	
214		GD	Bruce	Bruce	Bruce	
215		D	Cadott	Cadott	Cadott	
216		GD	Cashton	Cashton	Cashton	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

WISCONSIN—Continued.

A.—PUBLIC UTILITY PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
153	Private		(750)	(1,200)		720	$0.12 –$0.08	$0.045–$0.0125	Southern Wisconsin Power Co.	C. Mc.
154	Do		300	350		225	.10 .08	.04 – .025		C. Mc.
155	Do	50								C. Mc.
156										P.
157	Private			34		27½				C. Mc.
158	Do	575			250	570	.09	.02		C. Mc.
159									Rhinelander Power Co	Mc.
160	Private	2,100				400				C. Mc.
161		(170)				100				Mc.
162	Private		450	875		500	.16 – .06	.09 – .027		C. M. Mc.
163		280				160				Mc.
164		70				30	.17 – .05			C. Mc.
165			1,250	3,250		2,450	.12 – .06	.10 – .01		C. M. Mc.
166	Private	100	110	45		75				C. Mc.
167	Do	11,000				6,000	.015 – .006			C.M.Mc.O.
168					100	60				Mc.
169		550				450				Mc.
170			1,500	3,350		1,500			Great Northern Power Co	M. Mc.
171	Private						.10		Northwestern Electric Light & Power Co.	C. Mc.
172	Do	300				150	.12 – .036	.10 – .025	Union Tanning Co	C. Mc.
173	Do		150	200		125	.12 – .036	.10 – .025	do	C.
174			160	120		102			Steam from C. M. Goodyear Lumber Co.	Mc.
175			600	300		220				Mc.
176			200	75		60				Mc.
177		190				75				Mc.
178			150	150	150	200				Mc.
179					25	20	.15			C. Mc.
180			100	80	18	(100)				Mc.
181	Private						.10 – .06	.08 – .01	Ashland Light, Power & Steam Ry. Co.	C. Mc.
182	Do	210	160	165		325	.20 – .06			C. M. Mc.
183		2,800	600	1,000		1,300	.10 – .015	.10 – .0125		C.M.Mc.O.
184										
185	Private	135	600	150		250	.11 – .06	.06 – .015		C. Mc.
186			150	35		37½				C. Mc.
187		100				50				Mc.
188	Private	150				75	.10	.10 – .01		C .Mc.
189	Do		275	385	6	300	.13 – .05	.10 – .03		C. Mc.
190	Do	300				312	.12			C. Mc.
191		35				25				Mc.
192					110	70				C. Mc.
193	Private		(1,500)	1,800		950			Wisconsin Traction, Light, Heat & Power Co.	C.
194					15	40	.15			C. Mc.
195			100	65		37½				Mc.
196		8,000				4,800	.10 – .03	.06 – .01		C. M. O.
197		25,000				18,000	.02 – .004	.02 – .004		C. Mc. O.
198			1,400	2,470		1,500				C. M. Mc.
199	Private	8,000				5,000	.12 – .025	.10 – .01		C.M.Mc.O.
200		2,550	1,380	5,330		4,500				M. Mc.
201	Private	254	120	100		234	.12 – .08	.04		C. Mc.
	Total, A	155,930	77,887	177,540	7,268	219,248				

B.—MUNICIPAL PLANTS.

202			310	150		75	$0.11			Mc.
203	Private		180	216		166				C. Mc.
204		85				60				Mc.
205	Private	140			33	90	.08 – .05			C. Mc.
206	Do		300	250		190	.08 – .04	$0.04		C. Mc.
207			100	85		75				Mc.
208		350				450				Mc.
209		(50)	100	100		50				Mc.
210		48	150	100		150				Mc.
211									Lancaster Light & Power Co	C. Mc.
212	Private	200	125	125		140	.11 – .07	$0.07 – .03		C. Mc.
213					30	80				Mc.
214			85	70		30				Mc.
215									Wisconsin-Minnesota Light & Power Co.	Mc.
216			125	(125)		75				Mc.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

WISCONSIN—Continued.

B.—MUNICIPAL PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
217		GD	Cassville	Cassville	Cassville	
218		GD	Cedarburg	Cedarburg	Cedarburg	
219		GD	Clintonville	Clintonville	Clintonville	
220		GD	Colby	Colby	Colby	
221		GD	Columbus	Columbus	Columbus	
222		GD	Crandon	Crandon	Crandon	
223		D	Cuba City	Cuba City	Cuba City	
224		GD	Cumberland	Cumberland	Cumberland	
225		GD	Eagle River	Eagle River	Eagle River	Eagle and Wisconsin Rivers.
226		GD	Elkhorn	Elkhorn	Elkhorn	
227		GD	Elroy	Elroy	Elroy	
228		GD	Evansville	Evansville	Evansville	
229		GD	Fennimore	Fennimore	Fennimore	
230		GD	Florence and Commonwealth	Florence	Florence	
231		GD	Fort Atkinson	Fort Atkinson	Fort Atkinson	
232		GD	Grand Rapids	Grand Rapids	Grand Rapids	
233		GD	Grantsburg	Grantsburg	Grantsburg	
234		GD	Greenwood	Greenwood	Greenwood	
235		GD	Hartford	Hartford	Hartford	
236		D	Hazel Green	Hazel Green	Hazel Green	
237		GD	Independence	Independence	Independence	
238		GD	Jefferson	Jefferson	Jefferson	
239		D	Juneau	Juneau	Juneau	
240		GD	Kaukauna	Kaukauna	Kaukauna	
241		GD	Kewaunee	Kewaunee	Kewaunee	
242		D	Kilbourne	Kilbourne	Kilbourne	
243		GD	Lake Mills	Lake Mills	Lake Mills	
244		GD	Lodi	Lodi	Lodi	
245		GD	Loyal	Loyal	Loyal	
246		GD	Manitowoc	Manitowoc	Manitowoc	
247		GD	Marshfield	Marshfield	Marshfield	
248		GD	Mazomanie	Mazomanie	Mazomanie	
249		GD	Menasha	Menasha	Menasha	
250		GD	Merrillan	Merrillan	Merrillan	
251		GD	Minocqua	Minocqua	Minocqua	
252		GD	Monticello	Monticello	Monticello	
253		GD	Muscoda	Muscoda	Muscoda	
254		GD	New Glarus	New Glarus	New Glarus	
255		GD	New Holstein	New Holstein	New Holstein	
256		GD	New Lisbon	New Lisbon	New Lisbon	
257		GD	New London	New London	New London	
258		D	New Richmond	New Richmond	New Richmond	
259			Oconomowoc	Oconomowoc	Oconomowoc	
260		GD	Oconto Falls	Oconto Falls	Oconto Falls	
261		GD	Plymouth	Plymouth	Plymouth	
262		GD	Port Washington	Port Washington	Port Washington	
263		GD	Princeton	Princeton	Princeton	Teske's Ditch
264		GD	Randolph	Randolph	Randolph	
265		GD	Reedsburg	Reedsburg	Reedsburg	
266		GD	Reedsville	Reedsville	Reedsville	
267		GD	Rib Lake	Rib Lake	Rib Lake	
268		GD	Richland Center	Richland Center	Richland Center	
269		GD	River Falls	River Falls	River Falls	
270		D	Sauk City	Sauk City	Sauk City	
271		GD	Shawano and Richmond	Shawano	Shawano	
272		GD	Shell Lake	Shell Lake	Shell Lake	
273		GD	South Wayne	South Wayne	South Wayne	
274		GD	Spooner	Spooner	Spooner	
275		GD	Spring Green	Spring Green	Spring Green	
276		GD	Stoughton	Stoughton	Stoughton	Yahara River
277		GD	Sturgeon Bay	Sturgeon Bay	Sturgeon Bay	
278		GD	Sun Prairie	Sun Prairie	Sun Prairie	
279		GD	Thorp	Thorp	Thorp	
280		GD	Two Rivers	Two Rivers	Two Rivers	
281		GD	Waterloo	Waterloo	Waterloo	
282		GD	Waupun	Waupun	Waupun	
283		GD	Westby	Westby	Westby	
284		GD	Whitehall	Whitehall	Whitehall	Trempealeau River
285		GD	Withee	Withee	Withee	
286		GD	Wonewoc	Wonewoc	Wonewoc	

C.—ALL OTHER PLANTS.

287	Arpin Hardwood Lumber Co.			Atlanta, No. 1	Atlanta	Chippewa River
288	Do.			Atlanta, No. 2	do.	do.
289	Do.			Atlanta, No. 3	do.	do.
290	Bradley Estate			Grandmother Falls		Wisconsin River
291	Do.			Kings		do.
292	Do.			Nigger Island		do.

MUNICIPAL, AND INDUSTRIAL. BY STATIONS AND BY STATES, 1915—Continued.

WISCONSIN—Continued.

B.—MUNICIPAL PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
217			250	50		45				Mc.
218			350	600		425				Mc.
219	Private		200	270		190	$0.10	$0.07 -$0.03		C. Mc.
220	Do		80	75		50	.10			C. Mc.
221	Do		230	260		225	.10	.05		C. Mc.
222			90	130		75				Mc.
223									Interstate Light & Power Co	Mc.
224	Private		140	280		175				C. Mc.
225			300			200				C. Mc.
226			350	325		175				Mc.
227			250	175		150				Mc.
228	Private		200	200		175	$0.11- .05	.05 - .045		C. Mc.
229			200	95		50			Lancaster Light & Power Co	Mc.
230	Private		160	180		120	.10- .04			C. Mc.
231			270	350		200	.10- .03		Milwaukee Light, Heat & Traction Co.	C. Mc.
232			200	200		250	.10- .025	0.24	Consolidated Water Power & Paper Co.	C.
233	Private		90	87		50	.10			C. Mc.
234		100				60				Mc.
235	Private		375	725		490	.10	.07		C. Mc.
236									Interstate Light & Power Co	Mc.
237			158	(60)		371				Mc.
238		100	300	330		275				Mc.
239	Private						.12		Horicon Light & Power Co	C. Mc.
240		355	300	250		235				Mc.
241			200	200		125				Mc.
242									Southern Wisconsin Power Co.	Mc.
243	Private		200	150		104	.15- .06	.08 - .04	Milwaukee Electric Railway & Light Co.	C. Mc.
244	Do		130	100		45	.15			C. Mc.
245					85	50				Mc.
246	Private		700	900	150	770	.12- .07	.10 - .05		C. Mc.
247	Private		600	1,000		700	.10	.07 - .0275		C. Mc.
248			70	50		50				Mc.
249					525	460				Mc.
250		150				50				Mc.
251					24	20				Mc.
252			100	85		60				C. Mc.
253		125				100				Mc.
254			250	175		125	.10	.06 - .04		C. Mc.
255					218	150	.12- .09			C. Mc.
256	Private				75	50	.15			C. Mc.
257			250	250		195				Mc.
258									New Richmond Power Co	Mc.
259	Private		300	700		420	.10- .08	.05	Oconomowoc River Power Co.	C.
260			160	100		105				Mc.
261			300	560		375				Mc.
262			300	300		225	.08- .07	.07 - .03		C. Mc.
263	Private	140	100	85		60	.12- .08			C. Mc.
264	Do		100	200		145	.10			C. Mc.
265			160	420		250				Mc.
266					60	45	.09			C. Mc.
267	Private		100	100		60				C. Mc.
268	Do		375	300		250	.10	.08 - .05		C. Mc.
269		300				250				Mc.
270									Wisconsin River Power Co	C. Mc.
271	Private		500	250		275				C. Mc.
272			160	175		(100)				Mc.
273					25	20				Mc.
274		60				75				Mc.
275	Private		200	85		75	.11			C. Mc.
276	Do	540	150	133		390	.10- .06	.08 - .05		C. Mc.
277	Do		525	375		210	.09	.05		C. Mc.
278			125	150		100				Mc.
279			185	100		60				Mc.
280			250	285		250	.09	.04		C. Mc.
281			250	125		125				Mc.
282			300	375		232				Mc.
283			100	80		37				Mc.
284	Private	100				60	.06		Whitehall Mill & Power Co	C. Mc.
285			60	55		50				Mc.
286			125	83		75				Mc.
	Total, B	3,143	13,013	13,809	1,225	12,656				

C.—ALL OTHER PLANTS.

287								M.
288	3,500							O.
289								M.
290								O.
291	250							O.
292								O.

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

WISCONSIN—Continued.

C.—ALL OTHER PLANTS—Continued.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
293	Centralia Pulp & Water Power Co			Grand Rapids		Wisconsin River
294	Chicago, Harvard & Geneva Lake Ry. Co	G	Electric railway	Walworth	Walworth	
295	Combined Locks Paper Co		Manufacturing	Combined Locks	S. 24, T. 21 N., R. 18 E.	Fox River
296	Consolidated Water Power & Paper Co	G	do	Birron	Birron	Wisconsin River
297	Grandfather Falls Co		do	Merrill	Merrill	do
298	Hackley-Phelps-Bonnell Co	G	Electric lighting	Hackley	Hackley	
299	Kaukauna Fiber		Manufacturing	Kaukauna	Kaukauna	Fox River
300	Kimberly-Clark Co			Appleton No. 1	Appleton	Menomonie and Fox Rivers.
301	Do			Appleton, No. 2	do	
302	Do			Kimberly	Kimberly	
303	Do			Neenah, No. 1	Neenah	
304	Do			Neenah, No. 2	do	
305	Do			Niagara	Niagara	
306	Lindauer-O'Connell Co		Little Rapids and vicinity	Little Rapids	Little Rapids	Fox River
307	Lindaur Pulp Co		Manufacturing	Kaukauna	Kaukauna	do
308	Little Chute Pulp Co		do	Little Chute	Little Chute	do
309	Marathon Paper Mills Co	G	do	Weston	Weston	Wisconsin River
	Menasha Woodenware Co	H				
310	Menasha Paper Co		Manufacturing	Ladysmith	Ladysmith	Flambeau River
311	Neenah-Menasha Water Power Co			Menasha		Fox River
312	Outagamie Paper Co		Manufacturing	Kaukauna	Kaukauna	Lower Fox River
313	Rhinelander Paper Co			Oneida County		Wisconsin River
314	Stang, A. H., Co	G	Lighting	Merrill	Merrill	
315	Stewart, Alex., & Krause, R. L., Lumber Co			Lower Grandfather Falls.		Wisconsin River
316	Do			Wausau		do
317	Thilmany Pulp & Paper Co	G	Manufacturing	Kaukauna	Kaukauna	Fox River
318	Tomahawk Paper & Pulp Co		do	Tomahawk	Bradley	Wisconsin River
319	Union Bag & Paper Co	G	do	Kaukauna	Kaukauna	Fox River
320	Valley Mill & Mercantile Co		do	Little Chute	Little Chute	do
321	Wausau Paper Mills Co		do	Brokaw	Brokaw	Wisconsin River
322	Whiting-Plover Paper Co	G	do	Plover	Plover	Wisconsin and Plover Rivers.
323	Wisconsin River Pulp & Paper Co			Stevens Point		Wisconsin River
324	Wisconsin Tissue Paper Co	G	Manufacturing	Appleton	Appleton	Fox River

WYOMING.

A.—PUBLIC UTILITY PLANTS.

1	Afton Electric Co	GD	Afton	Afton	Afton	Clear Creek
	Amalgamated Copper Co	H				
2	Diamond Coal & Coke Co	GD	Diamondville and Oakley	Diamondville	Diamondville	
3	Buffalo Manufacturing Co	GD	Buffalo	Buffalo	Buffalo	
4	Cambria Fuel Co. of Wyoming	HGD			S. 29, T. 46 N., R. 61 W.	
5	Newcastle Light and Power Co	GD	Newcastle and Cambria	Newcastle	Newcastle	
6	Douglas Electric Light Co	GD	Douglas	Douglas	Douglas	
7	Evanston Electric Light Co	GD	Evanston	Evanston	Evanston	
	Federal Light & Traction Co	H				
8	Rawlins Electric Light & Fuel Co	GD	Rawlins	Rawlins	Rawlins	
9	Sheridan County Electric Co	GD	Sheridan	Sheridan	Sheridan	
10	Fort Yellowstone Light Plant (U. S. Army)	GD	Yellowstone Park	Yellowstone Park		Panther Creek
11	Do	GD	do	do		do
12	Green River Electric Light & Power Co	GD	Green River	Green River	Green River	
	Hendrie & Bolthoff Manufacturing & Supply Co	H				
13	Cowley Electric Light Co	GD	Cowley	Cowley	Cowley	
14	Hot Springs Light & Power Co	GD	Thermopolis	Thermopolis	S. 1, T. 42 N., R. 95 W.	Big Horn River
15	Intermountain Railway Light & Power Co	GD	Laramie	Laramie	Laramie	
	Kemmerer Coal Co	H				
16	Frontier Supply Co	GD	Kemmerer and Frontier	Kemmerer	Kemmerer	
17	Lander Electric Light & Power Co	GD	Lander	Lander	Lander	
18	Natrona County Electric Co	GD	Casper	Casper	Casper	
	Penn-Wyoming Copper Co	H				
19	Emerson Electric Light Co	GD	Encampment	Encampment	S. 14, T. 14 N., R. 84 W.	Shoshone River
20	Popo Agie Light & Power Co	GD	Riverton	Riverton	Riverton	
21	Saratoga Light, Heat & Power Co	GD	Saratoga	Saratoga	Saratoga	
22	Shoshone Electric Light & Power Co	GD	Cody	Cody	S. 25, T. 53 N., R. 101 W.	
23	Shoshoni Power & Irrigation Co	D	Shoshoni			
24	Union Pacific Coal Co	GD	Cumberland	Cumberland	Cumberland	
25	Do	GD	Hanna	Hanna	Hanna	
26	Do	GD	Rock Springs and Reliance	Rock Springs	Rock Springs	
	Western Light & Power Co	H				
27	Cheyenne Light, Fuel & Power Co	GD	Cheyenne and Fort Russell	Cheyenne	Cheyenne	
28	Wyoming Electric Light Improvement Co	GD	Worland	Worland	Worland	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

WISCONSIN—Continued.

C.—ALL OTHER PLANTS—Continued.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
293		2,800								C.
294			800	925		600			Wadsworth Lighting Co	M. Mc.
295		6,100	2,250	900						C.
296	Private	6,500	900	300		750				C.
297	Do	4,000				3,000				C. O.
298	Do		400	80		25				C.
299	Do	210	450	380						C.
300										M.
301										M.
302		13,450								M. O.
303										M.
304										M.
305										M.
306										C.
307	Private	600								C.
308	Do	4,000								C.
309	Do	5,000				550			Wausau Sulphate Fiber Co	C. O.
310	Do	2,600	1,850		900					C.
311		3,000								O.
312		2,250								C.
313		4,137								O.
314	Private		1,700	1,500		160				C.
315		500								O.
316										O.
317	Private	600	2,000	2,000		1,200				C.
318	Do	1,243	750	230						C. O.
319	Do	1,610				65				C.
320		40								C.
321		4,756	1,700	600						C. O.
322	Private	1,900	700	1,070		500				C. O.
323		5,300								O.
324	Private	150	300	400		250			Wisconsin Traction, Lighting, Heating & Power Co.	C.
	Total, C	74,496	13,800	8,385	900	7,100				
	Grand total	233,569	104,700	199,734	9,393	239,004				

WYOMING.

A.—PUBLIC UTILITY PLANTS.

1	Forest	140				60	$0.11 -$0.10			F. Mc.
2			220	275		152				Mc.
3		100	100	100		125				Mc.
4			500	670		500				C.
5	Private			100		75	.15 - .075	$0.15 -$0.075		Mc.
6			450	(330)		200				Mc.
7			450	350		355				Mc. C.
8			550	700		550				M. Mc.
9	Private		1,352	3,125		2,500				M. Mc. O.
10	Government	600				450	.05	.05		C.
11	Do	224				100				C.
12			600	300		300	.08	.055	West Alkali Manufacturing Co.	Mc. C.
13					20	15				Mc.
14	Private	400	200	200		350	.115- .06			Mc. C.
15			1,136	700		525				M. Mc.
16				225		70				Mc.
17	Private		375	285		175	.20 - .11	.06 - .01		Mc. C.
18			900	650		425	.04	.04 - .02		M. Mc. C.
19	Private	500	600	670		475	.15	.075		Mc. C.
20						62½				C.
21			75	75		50				Mc.
22		400				200				Mc. C.
23										Mc.
24	Private		1,800	150		200				Mc. C.
25				200		220				Mc. C.
26	Private		2,800	3,550		1,075	.14 - .08	.06 - .04		Mc. C.
27			1,661	1,565		1,900				M. Mc.
28			160	125		50				Mc.
	Total, A	2,364	13,929	14,345	20	11,160				

TABLE 55.—STATISTICS OF POWER DEVELOPMENTS, PUBLIC UTILITY,

WYOMING—Continued.

B.—MUNICIPAL PLANTS.

No.	Name of parent company and of subsidiaries or lessors.	Character of company.	Market supplied.	Name of plant.	Location.	Stream utilized.
29		GD	Basin	Basin	Basin	
30		GD	Dayton	Dayton	S. 32, T. 57 N., R. 86 W.	Tongue River
31		GD	Wheatland	Wheatland	Wheatland	

C.—ALL OTHER PLANTS.

32	Jordan, Henry		Flour mill	Manderson	Manderson	
33	Owl Creek Coal Co		Mining	Gebo	Gebo	
34	Rosin Coal Co.		do	Lost Spring	S. 33, T. 33 N., R. 67 W.	

MUNICIPAL, AND INDUSTRIAL, BY STATIONS AND BY STATES, 1915—Continued.

WYOMING—Continued.

B.—MUNICIPAL PLANTS.

No.	Status of land occupied.	Horsepower of water wheels.	Horsepower of boilers.	Horsepower of steam engines.	Horsepower of gas engines.	KVA rating of generators.	Lighting rate per kilowatt-hour or lamp-hour.	Power rate per kilowatt-hour or horsepower year.	Purchases power from—	Source of information.
29			235	235		150				Mc. C.
30		40			36	17				Mc. C.
31				100		60	$0.15	$0.15		C.
	Total, B	40	235	335	36	227				

C.—ALL OTHER PLANTS.

32	Private	140								C.
33			950	200		272½				C.
34						100				C.
	Total, C	140	950	200		272½				
	Grand total	2,544	15,114	14,880	56	11,759				

DEPARTMENT OF THE INTERIOR
GENERAL LAND OFFICE
FRED DENNETT, COMMISSIONER.

STATE OF ARIZONA

Compiled from the official Records of the General Land Office and other sources
under the direction of
I. P. BERTHRONG
Chief of Drafting Division G.L.O.
1912

Scale: 1 Inch — 12 Statute Miles

Kilometers

LEGEND

HYDRO	FUEL	
■	●	ARIZONA POWER CO.
	●	FEDERAL LIGHT AND TRACTION CO.
■	●	ALL OTHER PLANTS

SNYDER & BLACK, N.Y.

U.S. DEPT. OF AGRICULTURE - FOREST SERVICE
HENRY S. GRAVES, FORESTER

HYDRO-ELECTRIC TRANSMISSION SYSTEMS OF CALIFORNIA

INCLUDING EXTENSIONS INTO SOUTHERN OREGON AND WESTERN NEVADA

SCALE OF MILES
10 0 10 20 30 40 50

DISTRIBUTION LINES FOR VARIOUS COMPANIES WITHIN THE BOUNDARIES OF THE CITY AND COUNTY OF SAN FRANCISCO ARE NOT SHOWN

LEGEND.

HYDRO	FUEL	SYSTEM	
■	●	3	H. M. Byllesby & Company.
■		1	California-Oregon Power Company.
		9	California Telephone & Light Company.
■	●	17	Coast Counties Gas & Electric Company.
■	■	24	Holton Power Company.
■		16	Mariposa Commercial & Mining Company.
■	●	19	Mt. Whitney Power & Electric Company.
■	●	13	Nevada-California Power Company.
■		2	Northern California Power Company.
■	●	5	Oro Electric Corporation.
■	●	4	Pacific Gas & Electric Company.
	●		Pacific Lighting Corporation.
■	●	20	Pacific Light & Power Corporation.
	●	23	Ventura County Power Company.
■		12	Pacific Power Company.

HYDRO	FUEL	SYSTEM	
■	●	25	San Antonio Water Company.
■	■	15	San Joaquin Light & Power Corporation.
■		8	Snow Mountain Water & Power Company.
■	■	22	Southern California Edison Company.
■		7	Stone & Webster, Management Association.
■		14	Tuolumne Electric Company.
	■		United Properties Company of California.
			United Railways Investment Company.
	●	18	Coast Valleys Gas & Electric Company.
■	●	10	Sierra & San Francisco Power Company.
■		11	Utica Gold Mining & Hobart Estate Company.
■	■	6	Western Power Company.
■		14a	Yosemite Power Company.
■		21	City of Los Angeles.

A. HOEN & CO., BALTO., MD.

DEPARTMENT OF THE INTERIOR
GENERAL LAND OFFICE
FRED DENNETT, COMMISSIONER.

STATE OF COLORADO

105° West from Greenwich

WYOMING NEBRASKA

ROUTT NATIONAL FOREST
JACKSON
COLORADO NAT'L FOR.
ARAPAHO N.F.
GRAND
BOULDER
WHITE RIVER
RIO BLANCO NAT'L FOR.
GILPIN
CLEAR CREEK
SUMMIT
EAGLE
JEFFERSON
ARAPAHE
GARFIELD
HOLY CROSS NAT'L FOR.
PARK
DOUGLAS
ELBERT
LINCOLN
KIT CARSON
CHEYENNE
MESA
BATTLEMENT NAT'L FOR.
PIKE NAT'L FOREST
LEADVILLE N.F.
TELLER
EL PASO
PHILLIPS
SEDGWICK
LOGAN
MORGAN
WASHINGTON
ADAMS
YUMA
DELTA
GUNNISON NAT'L FOR.
CHAFFEE
GUNNISON
UNCOMPAHGRE
MONTROSE
OURAY
UNCOMPAHGRE NAT'L FOR.
FREMONT
CHEYENNE
LINCOLN
KIOWA
TOWNER
PUEBLO
OTERO
CROWLEY
BENT
PROWERS
SAN MIGUEL
SAGUACHE
NAT'L FOREST
HINSDALE
CUSTER
HUERFANO
LAS ANIMAS
DOLORES
SAN JUAN
RIO GRANDE
MINERAL
NATIONAL
RIO GRANDE
FOREST
MONTEZUMA
MONTEZUMA NAT'L FOREST
DURANGO NAT'L FOREST
LA PLATA
SAN JUAN NAT'L FOR.
ARCHULETA
CONEJOS
COSTILLA
SANGRE DE CRISTO
SOUTHERN UTE INDIAN RESERVATION

LEGEND

HYDRO	FUEL
	H. M. Byllesby & Co.
	Colorado Power Co.
	Doherty Operating Co.
	Federal Light and Traction Co.
	Hendrie & Bolthoff Mfg. and Supply Co.
	United Gas & Electric Corp. of Conn.
	Utah Securities Corporation
	All Other Plants

STAT. MILES

Compiled by A. F. Brunner.

Traced and Lettered by Wm. Bauman Jr.

West from Washington

SNYDER & BLACK N.Y.

Senate Doc. No. 316; 64th Cong., 1st Sess.

Senate Doc. 316; 64th Cong., 1st Sess.

BRITISH COLUMBIA
DOMINION OF CANADA
ALBERTA
SASKATCHEWAN
BLOOD INDIAN RES.
WATERTON NATIONAL PARK
GLACIER NATIONAL PARK
PEND OREILLE NATIONAL FOREST
BONNER
LINCOLN
FLATHEAD
TETON
CHOUTEAU
SANDERS
LEWIS & CLARK FOREST RESERVE
ROCKY MOUNTAINS
POWELL
CLARK
MISSOULA
CASCADE
FERGUS
VALLEY
DAWSON
DIVIDE
WILLIAMS
MCKENZIE
NORTH DAKOTA
SILLINGS
CLEARWATER
SELWAY NATIONAL FOREST
GRANITE
RAVALLI
IDAHO
JEFFERSON
BROADWATER
MEAGHER
MUSSELSHELL
GOLDEN VALLEY
WHEATLAND
WOLFCREEK
GARFIELD
PETROLEUM
FERGUS
YELLOWSTONE
GALLATIN
SILVER BOW
BEAVERHEAD
MADISON
SWEET GRASS
CARBON
STILLWATER
BIG HORN
CUSTER
ROSEBUD
POWDER RIVER
TONGUE RIVER, NORTHERN CHEYENNE INDIAN RES.
FORT PECK INDIAN RES.
MISSOURI
YELLOWSTONE NATIONAL PARK
FISH AND GAME PRESERVE
BEARTOOTH NATIONAL FOREST
CUSTER NATIONAL FOREST
TETON NATIONAL FOREST
BIG HORN NATIONAL FOREST
WYOMING
LEGEND
Hydro
Fuel
Amalgamated Copper Co.
H. M. Byllesby & Co.
Clark-Missoula Power Co.
Missoula Light & Water Co.
Montana Power Co.
All other plants
DEPARTMENT OF THE INTERIOR
GENERAL LAND OFFICE
FRED DENNETT, COMMISSIONER.
STATE OF MONTANA.
Compiled from the official Records of the General Land Office and other sources
under the direction of
I. P. BERTHRONG
Chief of Drafting Division G.L.O.
1911
STATUTE MILES
Compiled and Drawn by Daniel O'Hare

DEPARTMENT OF THE INTERIOR
GENERAL LAND OFFICE
FRED DENNETT, COMMISSIONER.

STATE OF NEBRASKA

Compiled from the official Records of the General Land Office and other sources
under the direction of
L.P. BERTHRONG
Chief of Drafting Division G.L.O.
1908

SOUTH DAKOTA

WYOMING

COLORADO

KANSAS

IOWA

MISSOURI

Longitude West 100 from Greenwich

Longitude West 23 from Washington

8th Standard Parallel North

7th Standard Parallel North

6th Standard Parallel North

5th Standard Parallel North

4th Standard Parallel North

6th Guide Mer. West

5th Guide Mer. West

4th Guide Mer. West

DAWES
SIOUX
SHERIDAN
BOX BUTTE
SCOTTS BLUFF
BANNER
CHEYENNE
KIMBALL
KEYA PAHA
BOYD
CHERRY
BROWN
ROCK
HOLT
KNOX
CEDAR
DIXON
DAKOTA
GRANT
HOOKER
THOMAS
BLAINE
LOUP
GARFIELD
WHEELER
ANTELOPE
PIERCE
WAYNE
THURSTON
MADISON
STANTON
CUMING
BURT
DEUEL
KEITH
PERKINS
LINCOLN
MCPHERSON
LOGAN
VALLEY
GREELEY
BOONE
PLATTE
COLFAX
DODGE
WASHINGTON
CUSTER
SHERMAN
HOWARD
NANCE
MERRICK
POLK
BUTLER
SAUNDERS
DOUGLAS
SARPY
CASS
DAWSON
BUFFALO
HALL
HAMILTON
YORK
SEWARD
LANCASTER
OTOE
CHASE
HAYES
FRONTIER
GOSPER
PHELPS
KEARNEY
ADAMS
CLAY
FILLMORE
SALINE
JOHNSON
NEMAHA
GAGE
DUNDY
HITCHCOCK
RED WILLOW
FURNAS
HARLAN
FRANKLIN
WEBSTER
NUCKOLLS
THAYER
JEFFERSON
POWESHIEK
RICHARDSON

NEBRASKA NATIONAL FOREST

NEBRASKA NATIONAL FOREST

NEBRASKA NATIONAL FOREST

YANKTON

SIOUX CITY

JULESBURG

LEGEND

- Continental Gas & Electric Corporation
- Doherty Operating Company
- Middle West Utilities Company
- Union Company of Omaha
- All other plants

Compiled by A.J. Dunmire

Senate Doc. 316, 64th Cong., 1st Sess

DEPARTMENT OF THE INTERIOR
GENERAL LAND OFFICE
CLAY TALLMAN, COMMISSIONER.

STATE OF NEVADA

Compiled from the official Records of the General Land Office and other sources.
under the direction of
I. P. BERTHRONG
Chief of Drafting Division G.L.O.
1914

STAT. MILES

LEGEND

Hydro	Fuel	
■	●	Elko-Lamoille Power Co.
■	●	Ely Light & Power Co.
■		Stone & Webster Mgt. Ass'n.
■		U. S. Reclamation Service
	●	Utah Copper Co.
■	●	All other plants

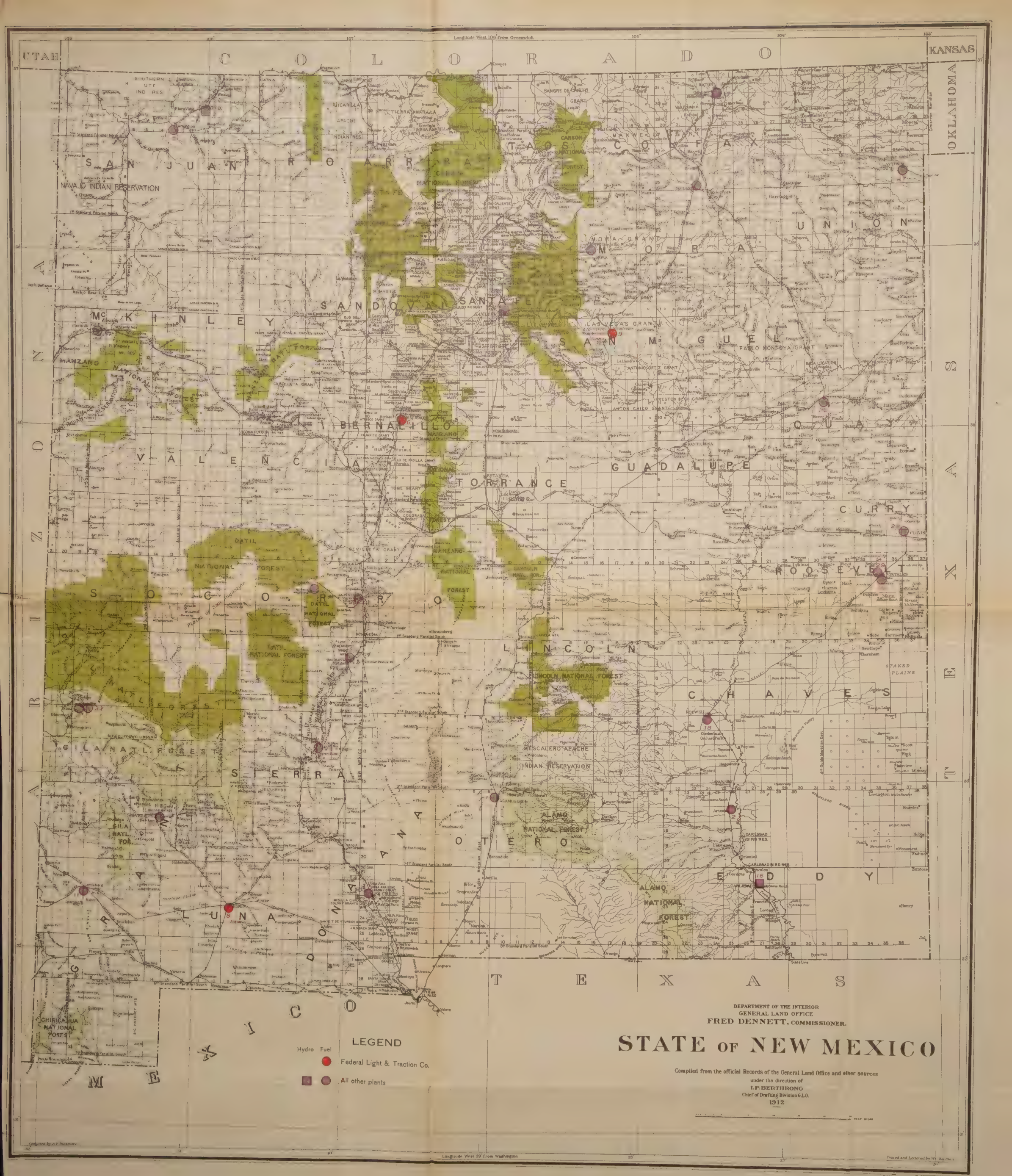
Nevada-California Power Co. Transmission System

Longitude West from Greenwich

Longitude West from Washington

Lettered by Chas. J. Hehn

Senate Doc. 316; 64th Cong., 1st Sess.



Senate Doc. 316; 64th Cong., 1st Sess.

DEPARTMENT OF THE INTERIOR
GENERAL LAND OFFICE
FRED DENNETT, COMMISSIONER.

STATE OF NORTH DAKOTA

Compiled from the official Records of the General Land Office and other sources
under the direction of
I.P.BERTHRONG
Chief of Drafting Division G.L.O.
1910

LEGEND
HYDRO FUEL
H.M.BYLLESBY AND COMPANY
ALL OTHER PLANTS

DOMINION OF CANADA
MANITOBA
ASSINIBOIA
MINNESOTA
SOUTH DAKOTA
Longitude West 100° from Greenwich
Longitude West 23° from Washington
STATUTE MILES
Compiled and Drawn by M.Hendges
Lettered by Wm. Bauman Jr.
A.HOEN & CO. BALTO. MD

Senate Doc. No. 316; 64th Cong., 1st Sess.

DEPARTMENT OF THE INTERIOR
GENERAL LAND OFFICE
FRED DENNETT, COMMISSIONER.

STATE OF OREGON

Compiled from the official Records of the General Land Office and other sources
under the direction of
I.P. BERTHRONG
Chief of Drafting Division G.L.O.
1910

LEGEND

Hydro Fuel

- American Power & Light Co.
- H. M. Byllesby & Co.
- California-Oregon Power Co.
- Eastern Oregon Light & Power Co.
- National Securities Corporation
- E. W. Clark & Co. Mgt. Corporation
- Hydro Electric Co.
- All Other Plants

WASHINGTON
IDAHO
CALIFORNIA
NEVADA
PACIFIC OCEAN

CLATSOP
COLUMBIA
TILLAMOOK
WASHINGTON
MULTNOMAH
HOOD RIVER
YAMHILL
CLACKAMAS
POLK
MARION
LINCOLN
BENTON
LINN
SHERMAN
GILLIAM
MORROW
UMATILLA
WALLOWA
WHEELER
GRANT
BAKER
UNION
WASCO
JEFFERSON
CROOK
DESCHUTES
COOS
DOUGLAS
LAKE
HARNEY
MALHEUR
JOSEPHINE
JACKSON
KLAMATH
CURRY

COLUMBIA RIVER
SNAKE RIVER
JOHN DAY RIVER
UMATILLA RIVER
MALHEUR RIVER
OWYHEE RIVER

WARM SPRINGS INDIAN RESERVATION
UMATILLA INDIAN RES.
KLAMATH INDIAN RESERVATION
CRATER LAKE NATIONAL PARK
UMATILLA NAT'L FOREST
WALLOWA NAT'L FOREST
WHITMAN NAT'L FOREST
MALHEUR NAT'L FOREST
OCHOCO NAT'L FOREST
DESCHUTES NATIONAL FOREST
CASCADE NAT'L FOREST
SANTIAM NAT'L FOREST
SISKIYOU NAT'L FOREST
ROGUE RIVER NAT'L FOREST
SIUSLAW NAT'L FOREST
KLAMATH NAT'L FOREST
MODOC NAT'L FOREST

Longitude West 124 from Greenwich
Longitude West 44 from Washington
STAT. MILES

Compiled by M. Hendyon, Revised by A.P. Dinsmore
Traced and Lettered by Wm. Bauman Jr.

SNYDER & BLACK, N.Y.

Senate Doc. No. 316; 64th Cong., 1st Sess.

DEPARTMENT OF THE INTERIOR
GENERAL LAND OFFICE
FRED DENNETT, COMMISSIONER.

STATE OF SOUTH DAKOTA

Compiled from the official Records of the General Land Office and other sources
under the direction of
L.P. BERTHRONG
Chief of Drafting Division G.L.O.
1910

LEGEND

Hydro	Fuel	
■	●	H. M. Byllesby & Co.
■	●	Ferris Bros. System
■	●	Interstate Power Co.
■	●	Light and Development Co. of St. Louis
■	●	All other plants

Longitude West 100° from Greenwich

Longitude West 23° from Washington

Compiled by M. Hendges, Revised by A.F. Dinsmore

Traced and lettered by Wm. Saurman

Senate Doc. 316, 64th Cong., 1st Sess.

DEPARTMENT OF THE INTERIOR
GENERAL LAND OFFICE
CLAY TALLMAN, COMMISSIONER.

STATE OF UTAH

Compiled from the official Records of the General Land Office and other sources.
under the direction of
I. P. BERTHRONG
Chief of Drafting Division G.L.O.
1915

LEGEND

Hydro
Fuel

- Beaver River Power Co
- L. L. Nunn
- Utah Securities Corporation
- All other plants

Longitude West 112 from Greenwich

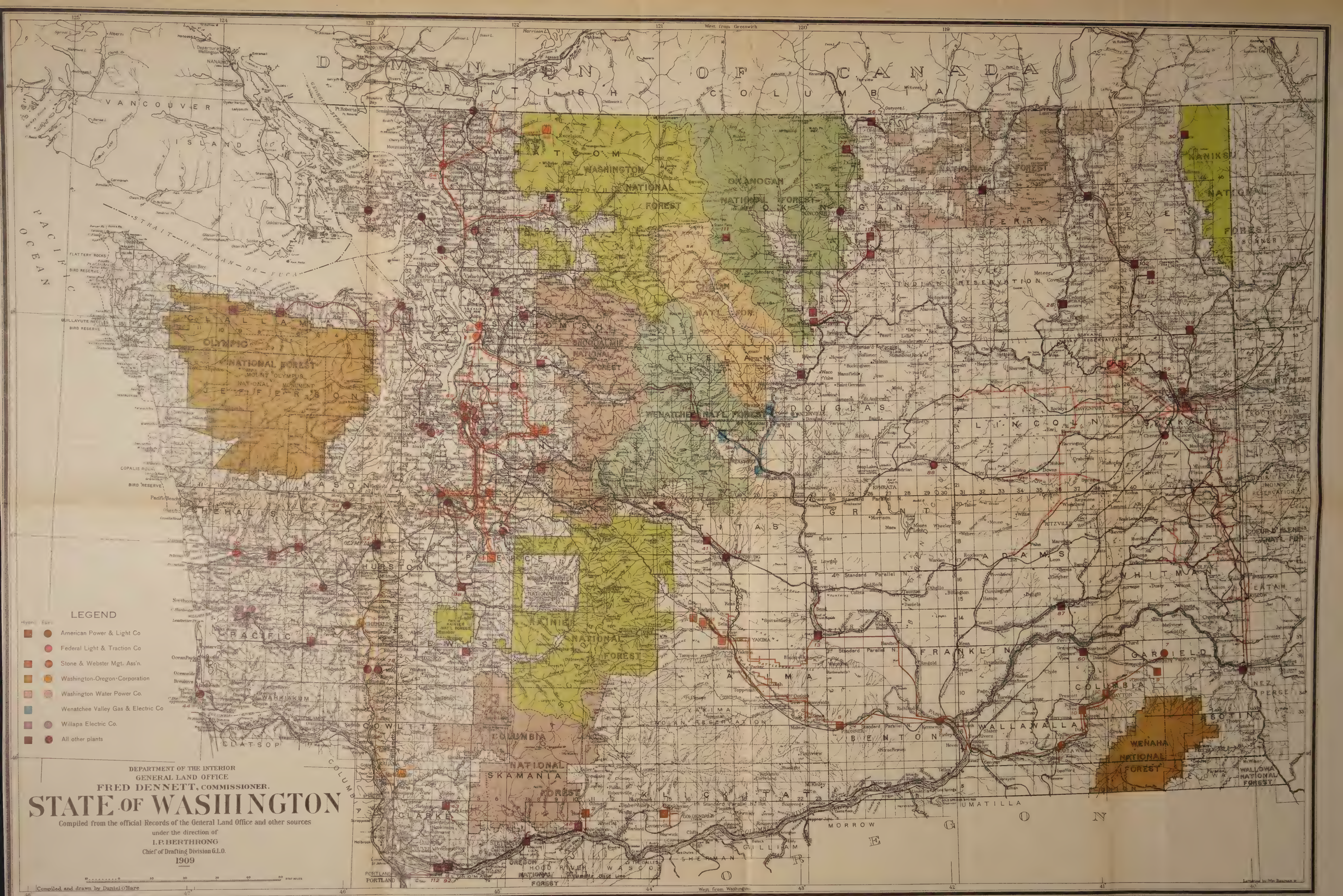
Longitude West 35 from Washington

Compiled by A. R. Dinsmore

Traced and lettered by Wm. Bauman Jr. and Thos. O. Monsleben

ENGRAVED AND PRINTED BY THE U.S. GEOLOGICAL SURVEY

Senate Doc. 316; 64th Cong., 1st Sess.



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DEPARTMENT OF THE INTERIOR
GENERAL LAND OFFICE
FRED DENNETT, COMMISSIONER.

STATE OF WYOMING.

Scale: 1 inch = 12 Miles

STAT. MILES

LEGEND

HYDRO FUEL

- FEDERAL LIGHT AND TRACTION CO.
- HENDRIE & BOLTHOFF MFG. AND SUPPLY CO.
- WESTERN LIGHT & POWER CO.
- ALL OTHER PLANTS

MONTANA

SOUTH DAKOTA

NEBRASKA

COLORADO

GALLATIN NATL. FOR.

MADISON NATL. FOR.

YELLOWSTONE NATIONAL PARK

TARGHEE NATL. FOREST

ABSAROKA NATL. FOREST

BEARTOOTH NATL. FOREST

SHOSHONE NATIONAL FOREST

BIGHORN NATIONAL FOREST

BLACK HILLS NATIONAL FOREST

HARNEY NATIONAL FOREST

TETON NATIONAL FOREST

BRIDGER NATIONAL FOREST

WASHAKIE NATIONAL FOREST

WIND RIVER OR SHOSHONE INDIAN RES.

PALISADE NATIONAL FOREST

LINCOLN NATIONAL FOREST

WYOMING NATIONAL FOREST

CARIBOU NATIONAL FOREST

UINTA NATIONAL FOREST

ASHLEY NATIONAL FOREST

SHERIDAN

BIG HORN

CROOK

CAMPBELL

JOHNSON

WASHAKIE

HOT SPRINGS

WESTON

NIOBRARA

NATRONA

CONVERSE

PLATTE

GOSHEN

SWEETWATER

CARBON

ALBANY

UINTA

LARAMIE

Great Divide Basin

Longitude West from Washington

SNYDER & BLACK, N.Y.

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